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THE ROLE OF RACIAL MICROAGGRESSIONS, BELONGINGNESS, AND
COPING IN AFRICAN AMERICAN PSYCHOLOGY DOCTORAL STUDENTS'
WELL-BEING

by

Ryan C. Warner, MS, CRC

A Dissertation submitted to the Faculty of the Graduate School,
Marquette University,
in Partial Fulfillment of the Requirements for
the Degree of Doctor of Philosophy

Milwaukee, Wisconsin

August 2019

ABSTRACT

THE ROLE OF RACIAL MICROAGGRESSIONS, BELONGINGNESS, AND COPING IN AFRICAN AMERICAN PSYCHOLOGY DOCTORAL STUDENTS' WELL-BEING

Ryan C. Warner, MS, CRC

Marquette University, 2018

Research has indicated that African American undergraduate students experience racial microaggressions within their university contexts, and these experiences are associated with negative outcomes such as symptoms of depression and anxiety (Cokely, Hall-Clark, & Hicks, 2011; Nadal, 2011; Nadal, et al., 2014). Little is known about the experience of microaggressions and their effects on African American doctoral students, particularly those within the field of psychology. The purpose of this study was to investigate the relationship between racial microaggressions, sense of belonging, coping strategies (problem solving, social support and avoidance), and psychological well-being among African American doctoral students in psychology. Results revealed that every participant had experienced at least one racial microaggression in their doctoral program within the last six months, with the most common types being related to environment and assumptions of inferiority. Contrary to hypotheses, results from a hierarchical multiple regression analyses suggested that racial microaggressions did not significantly predict psychological well-being in this sample. Findings also did not provide evidence for social support, problem solving, avoidance, or sense of belonging as moderators for the negative impact of microaggressions. Overall, the results of this study suggest that African American doctoral students in psychology experience racial microaggressions, but questions remain about the effects of these experiences on psychological well-being. Implications and future research directions are discussed.

ACKNOWLEDGEMENTS

Ryan C. Warner, MS, CRC

First and foremost, I want to thank God for guiding me through this phenomenal academic journey. Through times of self-doubt, struggle, accomplishment, and progress, God continues to shine light on my life's purpose. Ultimately, my doctoral studies have strengthened my faith bringing me great fulfillment.

Without my loving family and friends none of this would have been possible. I am eternally grateful for my mother and father, who have invigorated me to continue to persevere and strive towards excellence. I am also especially appreciative for the love, support, and encouragement of my soon-to-be wife, Jemia Marie Simpson. Your patience and sacrifice has been fundamental in assisting with my growth and development as a scholar and man of God. Your enduring love is truly appreciated and I am forever grateful for you.

I would also like to thank my dissertation committee members, Drs. Lisa Edwards, Kevin Tate, and Timothy Melchert. Your guidance, wealth of knowledge, and willingness to challenge me to my fullest potential has promoted both my personal and professional growth. Your genuine care and outstanding mentorship cannot be measured.

Lastly, I am extraordinarily thankful for the students who participated in my study. As an African American doctoral student myself, I share many of the same experiences and challenges as you all. I am truly inspired by your strength, resiliency, and ambition to make a change and difference in the communities you serve. In all, I am blessed to have such a supportive network of family, friends, and mentors, and I am excited to see where God guides me next!

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CHAPTER I

INTRODUCTION

The June 17th, 2015 evening bible study at the Emanuel African Methodist Episcopal Church in Charleston, South Carolina, began innocently enough. Twelve regular parishioners and church members gathered in the basement fellowship hall, including the pastor and a state senator. A new participant joined them on this night, a twenty-one-year-old white male by the name of Dylann Roof. The group welcomed Roof and they all began to pray and read verses from the Gospel. Then, after an hour had passed, Dylann Roof stood and calmly announced, "I'm here to kill black people!" At that point, he pulled a Glock 41 .45 caliber handgun from his fanny pack and began to unload on the members. Roof, equipped with eight magazines of hollow point bullets, continued to methodically fire for several minutes. When asked by one victim why he was doing this, Roof responded, "You are raping our women and taking over the country." As the full magnitude of the shooting unfolded overnight, it became clear this was one of the worst incidents of racial discrimination and terrorism in American history (Davis, 2016).

Despite indicators of racial progress in the United States (e.g., the two-term election of President Barack Obama), it is evident that African Americans continue to be plagued by racism. Contemporary acts of racially motivated violence serve as a harsh reality of the discriminatory world in which we live in [e.g., nine people killed in the massacre at a historical Black church (2015), police killings of Trayvon Martin (2012), Tamir Rice (2014), Mike Brown (2014), Eric Garner (2014), and even more recently, Alton Sterling (2016)]. Additionally, although the Civil Rights Act of 1964 (P.L. 88-352)

eliminated legal discrimination based on race, racial discrimination is still a fact of life for many individuals in the United States (Hannon, 2016). Throughout United States history, racial discrimination has been prevalent among many different racial, ethnic, and cultural groups; however some researchers have long argued that discrimination against African Americans has been one of the most difficult to overcome (Feagin & Eckberg, 1980).

Similar to the rest of society, colleges and universities are not immune to racial discrimination. A large amount of research has reported that racial discrimination has significant impacts on the health and well-being of African American college students (Greer & Brown, 2011; Hannon, 2016; Harwood, Hunt, Mendenhall, & Lewis, 2012; Prelow et al., 2006). With “Blackface” party incidents and “noose” hangings making news at numerous universities all over the country, African American students face challenges beyond the academic scope of tests, papers, and projects (Beamon, 2014). Although racial discrimination is likely to occur at many different types of post-secondary institutions (e.g., community colleges, historically black colleges, etc.), a large majority of the literature focuses on the African American college student experience at four-year, predominantly white institutions (PWIs).

Recently, racial microaggressions, a modern form of racism comprised of subtle daily racial slights and insults, have received increased empirical attention (Torres, Driscoll, & Burrow, 2010). It has been suggested that these everyday disparaging messages, which are often ambiguous, carry with them more severe psychological consequences than overt forms of discrimination (Solorzano, Ceja, & Yosso, 2000). Research has found that some effects of microaggressions among African Americans

include academic underperformance (Owens & Massey, 2011), psychological stress and academic detachment (Harper, 2001), and the development of increased social exclusion on campus (Brondolo, Brady, Thompson, Tobin, Cassells, Sweeney, et al. 2008). In turn, these negative experiences affect college retention, and they may also preclude African American students from meeting their occupational goals (Tovar-Murray, Jenifer, Andrusyk, D'Angelo, & King, 2012).

Though a growing body of literature has focused on the effects of racial discrimination on African American undergraduates, few empirical studies have investigated the effects on African American doctoral students. The experiences of this particular population are important to examine because although we see more minority students obtaining doctoral degrees in recent years, African American students are still pursuing and obtaining degrees at lower rates than their peers. For instance, in 2015, there were 55,006 doctoral recipients, with only 2,781 identified with being African American/Black (U.S. Department of Education, 2015). More specifically within psychology, there is a significant under-representation of African American students, faculty, practitioners, and researchers. According to APA (2017) and NSF (2016), African Americans made up about 6% of psychology doctoral students enrolled in the year 2015-2016. More specifically in 2016, out of 3,946 doctoral recipients, 232 identified as African American.

Additionally, the active psychology workforce was considerably less diverse compared to the overall U.S. workforce (APA, 2013). In 2013, Whites accounted for 83.6 percent of active psychologists, racial/ethnic minority groups made up approximately 16.4 percent of active psychologists, and more specifically, Black/African

Americans only made up 5.3 percent of active psychologists (NSF, 2014). Furthermore, there is a substantial lack of active African American male psychologists. According to APA (2013), for every male Black/African American active psychologist, there were 5.8 female Black/African American active psychologists. Together these statistics highlight a significant concern regarding recruitment and retention of African American graduate students.

This lack of diversity in the workforce also contributes to fewer African American role models in academia and in the community. Ultimately, this may lead to less research on issues relating to African Americans in the United States, including a decline of research that aids in understanding these communities from their perspective (Ingram, 2016). Additionally, there will be limited perspectives from individuals of diverse backgrounds, which may impact the training and clinical practices of psychologists and scholars.

Another reason to examine the experiences of doctoral students is because doctoral programs are unique contexts with their own set of challenges. Because they occupy a unique social position within institutions of higher education, graduate students are faced with multiple institutional sources of stress and role strain (Grady, La Touche, Oslawski-Lopez, Powers, & Simacek, 2014). For instance, while still students, many are also instructors or in other supervisory roles at their universities. The expectations of the student and supervisory roles may conflict, as may their academic and nonacademic roles. Additionally, graduate students may experience role overload as time constraints challenge their ability to fulfill academic and nonacademic roles successfully (Hunt, Mair, and Atkinson 2012). For this population, making balance between work and

personal life may be difficult to manage. Furthermore, the position of graduate students is marginalized; their roles tend to be peripheral and lack access to institutional power. Because of this, they lack access to many of the strategies used by academic professionals to mitigate role strains (Hunt et al., 2012).

Many of the challenges to successful navigation of graduate education may thus stem from the structure of graduate education itself. Graduate students are neither fully students nor fully professionals, but rather in a space between these two roles. Grady and colleagues (2014) found that the major institutional sources of stress for this population include role strain, mentor relationships, isolation, and lack of funding. In turn, the social position of graduate students has implications for students' mental health, with studies suggesting that graduate students' risk for developing psychological health problems is directly related to the challenge of navigating intersecting roles (Grady et. al., 2014).

For graduate students of color, their racial/ethnic background presents additional challenges. Race/ethnicity is an important factor to examine because research has demonstrated that Black college students directly or indirectly refer to racial dynamics as a factor affecting their psychological well-being (Fleming, 1981; Negga, Applewhite, & Livingston, 2007). Additionally, according to Geer and Brown (2010), racial/ethnic stress may cause minority students to perceive the campus climate as uninviting, unwelcoming, and discriminatory. One reason students may perceive the campus climate negatively can be attributed to experiencing microaggressions. Furthermore, studies have found that when African American students perceive the campus climate negatively, their well-being diminishes (Beamon, 2014; Chao, Longo, Wang, Dasgupta, & Fear, 2014; Stebleton, Soria, & Huesman, 2014). When well-being is diminished, retention and

occupational goals are also impacted (June, Curry, & Gear, 1990; Tovar-Murray et al, 2012).

Frameworks have been proposed to help describe how the effects of cultural-related stress, such as racial discrimination, may affect well-being. Some of the most commonly used are based on frameworks of stress and coping. For instance, based on the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984), the most common framework of stress and coping, Chun, Moos, & Cronkite (2006) conceptual model indicates cultural related stress (e.g., microaggressions) may affect well-being. In recent years, the field has been trying to introduce more utility to stress and coping research, as the acontextual research of the last two decades yielded few solid findings that made a difference in people's lives (Somerfield & McCrae, 2000). One of the most important neglected contexts is culture, which researchers acknowledge is a fundamental context that helps shape both the individual and the environment (Lonner, 2007; Chun, Moos, & Cronkite, 2006).

In response to the critique that stress and coping frameworks should account for culture, Chun and colleagues' (2006) conceptual model of stress and coping emerged as a model within psychology. This transactional model suggests there are internal and external factors which impacts how individuals cope with cultural stress. Furthermore, the model provides an outline of the interplay between context, coping, and well-being. This model is built on the assumption that stress is a person-situation interaction, one that is dependent on the subjective cognitive judgment that arises from the interplay between the person and the environment (Zakowski, Hall, Klein, & Baum, 2001).

Chun's model serves as a useful framework to explore the experiences of racial discrimination on well-being among African American doctoral students. More specifically, in the current study microaggressions, sense of belonging and coping and their effects on PWB was investigated. As an example of discrimination, microaggressions was explored because research suggests that microaggressions are a complex stressor to the extent that individuals must cope with the psychological consequences of experiencing such an adverse interpersonal interaction (Brondolo, ver Halen, Pencille, Beatty, & Contrada, 2009). In the one study that explored microaggressions with doctoral students, active coping was found to moderate the racial microaggression-perceived stress link such that individuals who endorse active coping behaviors reported lower perceived stress (Torres et al., 2010). Therefore, it is important to understand that students may utilize different strategies and constructs to buffer the negative effects of microaggressions on psychological well-being.

Two possible variables that may moderate these relationships are sense of belonging and coping. Sense of belonging is explored as a possible moderator because research has established that experiences of discrimination negatively affect sense of belonging and retention, even among the most high-achieving Black students (Chang, Eagan, Lin, & Hurtado, 2011). Most research conducted to date on sense of belonging has focused on the experiences of select racial/ethnic minorities in navigating the college culture, and to a lesser extent on its purported link to college student persistence. Some studies have examined how the campus racial climate affects students' sense of belonging at their institutions, particularly for students of color (Johnson, Soldner, Leonard, & Alvarez, 2007; Nuñez, 2009; Strayhorn, 2008). However, this factor has not yet been

explored among African American doctoral students. Additionally, no research to date has examined sense of belonging as a possible moderator when exploring the effects of racial discrimination on the well-being of African American doctoral students.

Coping strategies are explored because researchers have suggested that the coping skills an individual uses in response to racial discrimination are likely to influence their appraisal of the event and their level of perceived stress (Clark, Anderson, Clark, & Williams, 1999; Lazarus & Folkman, 1984). Active coping, for example, thinking ahead and organizing thoughts or ideas about future situations, might be particularly useful (Torres et al., 2010). Therefore, it is important to examine the role of active coping strategies in moderating the link between racial microaggressions and perceived stress (Torres et al., 2010).

In summary, while some researchers have noted the negative effects of microaggressions (Broudy, Brondolo, Coakley, Brady, Cassells, Tobin, et al., 2007; Ong, Fuller-Rowell, & Burrow, 2009; Sue, Capodilupo, & Holder, 2008), little is known about the variables that may diminish these effects within the graduate school context for African Americans. Thus, questions remain about the role of sense of belonging and coping for African American doctoral students in psychology who experience microaggressions (Torres et al., 2010).

Organization of the Dissertation

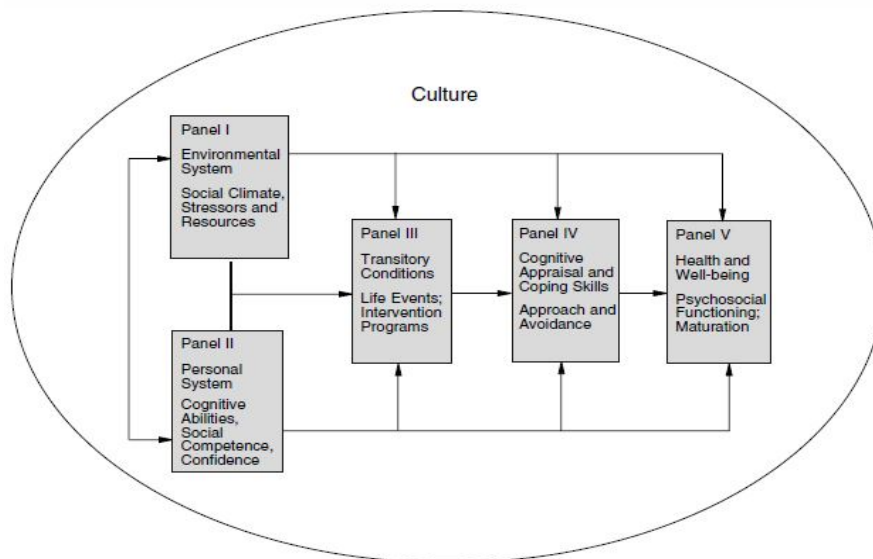
This dissertation consists of five chapters. Chapter One provides an overview of the present research. The purpose and significance of this study is explored, terms are defined, and primary research questions are introduced. Chapter Two reviews existing

literature relevant to this study. Previous research efforts and findings pertinent to this study are reported. Furthermore, Chapter Three describes the methodology of this study including its design, participants, instruments, procedures, data analysis, and hypotheses. Chapter Four reports the findings of the study, and Chapter Five discusses the implications of the findings, limitations, and suggestions for future research.

Purpose and Significance of Study

The purpose of this study is to examine the relationship between racial microaggressions, sense of belonging, coping, and psychological well-being among African American doctoral students in psychology in the United States. The Chun et al. (2006) conceptual model of stress and coping was used as a framework for understanding the role of belonging and coping on well-being among this population.

Figure 1. Chun et al. (2006) model of interplay between context, coping, and well-being.



Based on Lazarus and Folkman's (1984) model of stress and coping and Moos' (1984) transactional model, Chun and colleagues' conceptual framework is used to exemplify ways to explore the stress and coping process, and it provides an outline of the interplay between context, coping and adaptation. Due to the interplay between the social climate, coping skills, and well-being, this model is ideal. The current project's variables (i.e., microaggressions, sense of belonging, coping and psychological well-being) can be mapped directly onto this model (see Figure 2). Specifically, the transactions between the ongoing environmental system (Panel I; microaggressions) and the personal system (Panel II), influence subsequent transitory conditions (Panel III), cognitive appraisal and coping skills (Panel IV; sense of belonging and coping strategies), and the health and well-being (Panel V; psychological well-being) of individuals. Ultimately, further understanding the assets and skills African American doctoral students use in the context of microaggressions can assist with retention efforts for this population.

Furthermore, this current project is important for several reasons. First, the potential mechanisms by which racial microaggressions impact mental health, along with the coping skills that can serve as protective factors, are not well understood (Torres et al., 2010). For instance, although we know that exposure to racism and racial microaggressions have been found to have unfavorable effects on African American students' learning outcomes across secondary and college contexts (Hotchkins, 2016), very limited research has examined this relationship among non-undergraduate college samples. Secondly, little is known about how sense of belonging or coping strategies (emotion and problem focused) may impact the African American graduate student experience when racial stress is present. Given that African American doctoral students

have lower persistence and graduation rates compared to Whites (Matthews, 2012), and the impact microaggressions have on psychological well-being, further investigating the role of microaggressions on this population is warranted. Lastly, further understanding the assets and skills that African American doctoral students use in the context of microaggressions can assist with retention efforts for this population.

Definition of Terms

African American

Black or African American refers to a person having origins in any of the Black racial groups of African. The Black racial category includes people who marked the “Black, African Am., or Negro” checkbox. It also includes respondents who reported entries such as African American; Sub-Saharan African entries, such as Kenyan and Nigerian; and Afro-Caribbean entries, such as Haitian and Jamaican (U.S. Census Bureau, p. 1). Throughout this paper, the term Black and African American was used interchangeably. In the cases in which research is being reviewed, the terms used by the respected authors are utilized.

Coping

In this study, coping was referred to, “a person’s cognitive and behavioral efforts to reduce a perceived threat or to manage emotions associated with stress” (Plummer & Slane, 1996, p. 302). Specifically, problem focused and emotion focused coping were discussed. Problem focused coping assists with managing or eliminating the inciting

stressors. Emotion focused coping is responsible for modulating stress-induced affective reactions through defensive appraisals that deny the harm or significance of stressors. Rather than changing the problem, as in problem focused coping, emotion focused coping examines the emotional response to the stressor (Mellor, 2004; Folkman et al., 1986).

Psychological well-being

Psychological well-being (PWB) is an internal focused method of attaching value to the quality of life and a effective experience are generally accepted as a scientific construct with long-term (propensity or disposition) and short term (mood) components (Hermon & Hazler, 1999). Additionally, according to Ryff and Keyes (1995), psychological well-being involves six distinct aspects of human actualization: autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness. These six constructs define PWB both theoretically and operationally and they specify what promotes emotional and physical health (Ryff & Singer, 1998).

Racial Discrimination

Racial discrimination refers to, "practices carried out by members of dominant racial or ethnic groups that have a differential and negative impact on members of subordinate racial and ethnic groups" (Feagin & Eckberg, 1980, p. 1-2).

Racial Microaggressions

Racial microaggressions are subtle insults (verbal, nonverbal, and/or visual) directed toward people of color, often automatically or unconsciously (Solorzano et al., 2000). This is the opposite of overt discrimination, which exists when a person/group openly and blatantly discriminates on a prohibited basis. Sue and Sue (2016) explain that microaggressions may sometimes seem innocent and innocuous, but their cumulative nature can be extremely harmful to the victims' physical and mental health.

Sense of Belonging

Student sense of belonging refers to, "students' perceived social support on campus, a feeling or sensation of connectedness, the experience of mattering or feeling cared about...to others and the campus" (Strayhorn, 2012, p. 3).

Research Questions

The current study used a quantitative methodology to examine the following research questions: 1) What is the frequency and most/least common types of racial microaggressions that African American doctoral students in psychology experience? 2) What is the impact of microaggressions on psychological well-being for African American doctoral students in psychology? 3) Do coping strategies and sense of belonging buffer the negative effects of microaggressions on psychological well-being for African American doctoral students in psychology? Using multiple regression analysis, sense of belonging and coping strategies were entered as possible moderators to

test the interaction of these variables with microaggressions in predicting psychological well-being.

CHAPTER II

LITERATURE REVIEW

The beginning of this chapter consists of a review of the stress and coping model that is used as a framework throughout the project. Additionally, the concept of health and well-being is explored. Next, a brief history of discrimination in higher education is discussed. Additionally, racial discrimination experiences of undergraduate and graduate students are investigated. Next, this paper reviews the experiences of microaggressions among African American college students. The final section of this chapter examines literature related to strengths that may buffer the negative effects of race-related stress, including coping strategies and sense of belonging.

Stress and Coping Framework

As previously mentioned, there are a disproportionately low number of African American students pursuing and obtaining doctoral degrees (Curry, 2011). Researchers have noted that African Americans face racial discrimination (e.g., microaggressions), which may contribute to decreased psychological well-being. Furthermore, attrition rates at the college level may be impacted, in turn leading to fewer enrollments at the graduate level (Torres et al., 2010). Understanding how students can effectively cope with race-related stress has been noted as an area of importance in higher education.

While many frameworks have been theorized to explain how individuals cope with stress in their lives, they have tended to be general in nature and not focused on

context. The most popular conceptualization, by Lazarus and Folkman (1984), viewed psychological stress as a relationship between the person and environment that is appraised as potentially endangering to one's well-being.

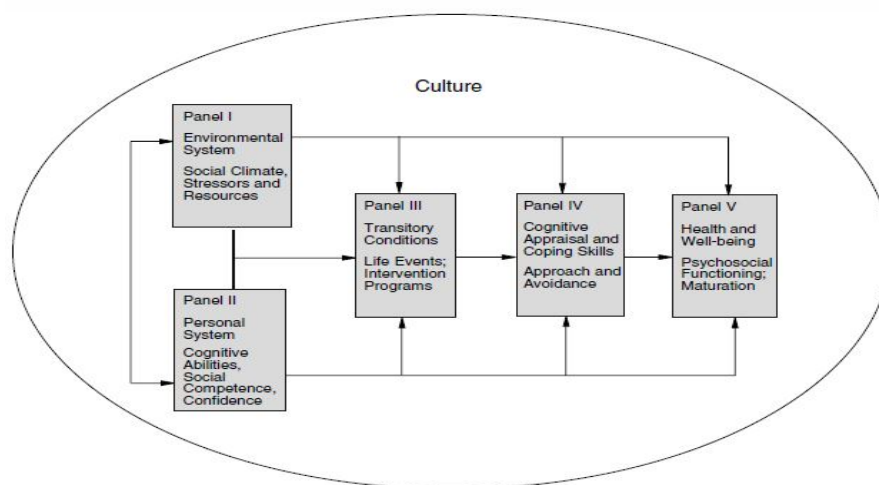
While the Lazarus and Folkman (1984) model has been seminal in the field of stress and coping, more recent models have expanded the model to more specifically highlight the effects of context. One such model is the conceptual model of stress and coping by Chun, Moos, and Cronkite (2006) [See Figure 1]. This framework was used in the current study to examine the effects of racial discrimination on African American psychology doctoral students' psychological well-being. Based on Lazarus and Folkman's (1984) model of stress and coping and Moos' (1984) transactional model, Chun and colleagues' conceptual framework is used to exemplify ways to explore the stress and coping process, and it provides an outline of the interplay between context, coping and adaptation. This model is useful because it highlights several areas: the environmental system, personal system, transitory conditions, cognitive appraisal and coping skills, as well as health and well-being.

According to this framework (Chun et al., 2006), the environmental system consists of the social climate and ongoing stressors/resources that arise from settings in different life domains (e.g., family, work, school). The personal system is composed of individuals' personal characteristics and resources, such as their cognitive abilities, personality traits, social competence, and self-confidence. Transitory conditions include new acute life events and changes that occur in an individual's life. Individuals appraise these conditions for their degree of threat or challenge. Appraisals are based upon whether they are equipped with adequate personal and environmental resources to deal

with the situation. In turn, appraisal influences the type of coping strategies that are employed. These strategies can be characterized in terms of their focus (approach/avoidant) and method (cognitive/behavioral). Subsequently, the success of coping influences individual health and well-being.

One of the key strengths of this model lies in its emphasis on the contextual factors in the stress and coping process, as well as its focus of transitory events and well-being. Because graduate school serves as a transitory experience, this framework fits well. The model also depicts the transactional relationships among the five panels, as reflected by bi-directional arrows. For example, the bi-directional arrow between the environmental system and the personal system suggests that the social climate and personality characteristics can influence each other. The model also suggests that, together with the personal system, the ongoing environmental context influences the occurrences of transitional life events, as well as how individuals appraise and cope with the events and how they affect health and well-being (Chun et al., 2006).

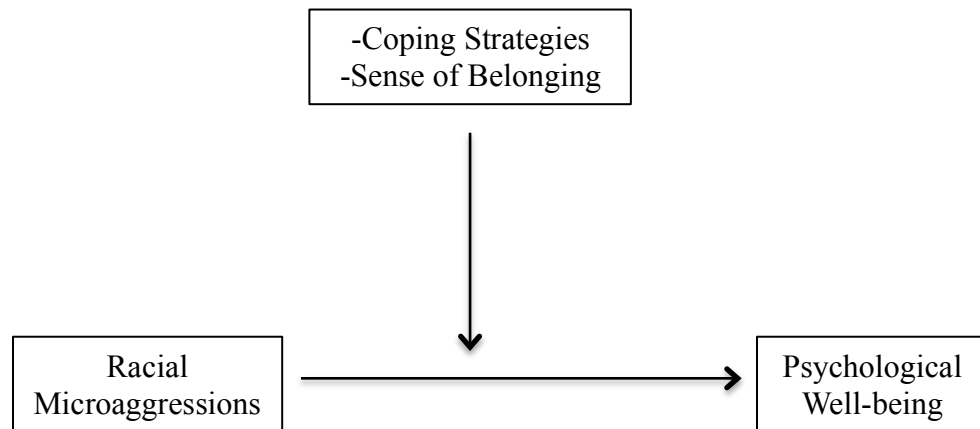
Figure 1. Chun et al. (2006) model of interplay between context, coping, and well-being.



This model has historically been used to examine stress and coping within family, work, and neighborhood transitory settings (Chun et al., 2006). Additionally, it has been used to conceptualize the influences of acculturation among immigrant college students (Kuo, 2011) and examine the role of cultural coping behaviors on academic stress for psychology undergraduate students (Kuo, Soucie, Huang, & Laith, 2017). However, to the author's knowledge, it has not yet been used as a framework to specifically investigate African American psychology doctoral students.

The current project's variables (i.e., microaggressions, sense of belonging, coping and psychological well-being) can be mapped directly onto this model (See Figure 2). Specifically, the transactions between the ongoing environmental system (Panel I; microaggressions) and the personal system (Panel II), influence subsequent transitory conditions (Panel III), cognitive appraisal and coping skills (Panel IV; sense of belonging and coping strategies), and the health and well-being (Panel V; psychological well-being) of individuals. Due to this model being broad in nature and encompassing many different variables, modification was necessary. Based on the variables prevalent to this study, the Panel I, Panel IV, and Panel V served as appropriate domains to better understand the interplay between context, coping, and well-being.

Figure 2. Relationship between racial microaggressions, coping strategies, sense of belonging, and psychological well-being.



Health and Well-being

Prior to exploring the effects of racial discrimination, it is important to review the concept of well-being, which serves as the dependent variable in this study. While there is extensive literature on the concept of well-being, it has defied simple definition because of its inherent complexity (McNaught, 2011). To begin, one approach to understanding well-being is by examining its relationship with health. Throughout the literature, well-being and health are often connected. When reviewing the concept of well-being, many scholars refer to the WHO (1946) definition that, “health is not the mere absence of diseases but a state of well-being” (p. 981). According to this definition, well-being and health are connected; however, these concepts have significant distinction. While health tends to be located within biomedical and positivist discourses (scientific knowledge), well-being, on the other hand, was theoretically perceived as more appropriate to the domains of the emotional and psychological (McNaught, 2011).

As a result, well-being has been considered one of the many domains of health, as opposed to being examined separately.

Shin and Johnson (1978) seemed to move closer to defining well-being by stating that it is “a global assessment of a person’s quality of life according to his own chosen criteria” (Shin & Johnson, 1978, p. 478). This judgment is still reflected in today’s literature (Rees, Goswami, & Bradshaw 2010; Stratham & Chase, 2010). The World Health Organization (1997) defines quality of life as: an individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns (p. 1). It is a broad ranging concept affected in a complex way by the person’s physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment (World Health Organization, 1997). However, due to the term “quality of life” being defined differently in a variety of disciplines, the task of defining well-being becomes greatly more challenging.

Conceptualizations of Well-being

Research on well-being has been growing in recent decades. Today, the question of how well-being should be defined (or spelled) still remains largely unresolved (Cooke, Melchert, & Connor 2016; Forgeard, Jayawickreme, Kern, & Seligman 2011). For much of the last century, psychology’s focus on the amelioration of psychopathology overshadowed the promotion of well-being and personal growth. But beginning in the 1960’s with a shift in focus toward prevention, a few researchers studied growth (Deci, 1975), well-being (Diener, 1984), and the promotion of wellness (Cowen, 1991). Ryff

(1989) identified aspects that constitute well-being: autonomy; environmental mastery; positive relationships with others; purpose in life; realization of potential and self-acceptance. More recent research has placed a different emphasis on well-being, explaining that it is the ability to fulfill goals, happiness, and life satisfaction (Foresight Mental Capital and Well-being Project, 2008). An expert in the field, Corey Keyes, uses the term “flourishing” to describe an individual who is characterized by the presence of mental health, or well-being, whereas an individual without well-being is described as “languishing” (Keyes, 2002). Ryan and Deci (2001) explain that the concept of well-being refers to optimal psychological functioning and experience. It is the focus not only of everyday interpersonal inquiries (e.g. “How are you?”), but also of intense scientific scrutiny. Stable well-being is when individuals have the psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge. When individuals have more challenges than resources, the “see-saw” dips, along with their well-being, and vice-versa (Dodge et al., 2012). It is also important to mention that many believe well-being is more than just happiness. As well as feeling satisfied and happy, well-being can mean developing as a person, being fulfilled, and making a contribution to the community (Shah & Marks, 2004).

Two fundamental approaches have emerged from the research on well-being: the hedonic tradition and the eudaimonic tradition. The hedonic tradition focuses on happiness and defines well-being in terms of pleasure attainment and pain avoidance (Ryan & Deci, 2001). Psychologists who have adopted the hedonic view tend to focus on a broad conception of hedonism that includes the preferences and pleasures of the mind as well as the body. Although there are many ways to evaluate the pleasure/pain

continuum in human experience, most research within the new hedonic psychology has used assessment of subjective well-being (Diener & Lucas 1999). Subjective well-being (SWB) consists of three components: life satisfaction, pleasant affect, and unpleasant affect (Mackie, Stone, & National Research Council 2013).

Although much of the recent research on well-being has been more closely aligned with the hedonistic tradition, experts have heavily criticized this approach. Ryan and Huta (2009) expressed concern that if SWB were to be the only indicator of wellness, then more happiness would equate to more wellness, which ignores both the source of happiness and the functioning of the individual. They go on to state that SWB can be a good indicator of wellness, but only when considered in the context of the functions, values, and behaviors that engender it. Ryff and Singer (1998) challenged SWB models of well-being as being of limited scope where positive functioning is concerned, and specifically that SWB is often a fallible indicator of healthy living. Additionally, Delle-Fave and Bassi (2009) suggests that, at times, an individual may be healthy and functioning well, despite not feeling good in their life. Due to these various concerns, the eudaimonic tradition has been used as an alternative conceptualization for well-being.

The eudaimonic approach, which focuses on meaning and self-realization, defines well-being in terms of the degree to which a person is fully functioning. This approach explains that developing one's potentials in the pursuit of complex and meaningful (both to the individual and society) goals is the hallmark of a "good life" (Keyes, 2009). Eudaimonic approaches consider well-being to consist of more than just happiness, suggesting that peoples' reports of being happy (or of being positively affective and satisfied) do not necessarily mean they are psychologically well (Deci & Ryan, 2008).

Moreover, there is a concern that hedonic happiness and satisfaction can result from reprehensible behavior, so therefore subjective reports of happiness should not be considered a good indication of whether a life is well lived (Henderson & Knight, 2012). As subjective pleasure can be experienced in many contexts (e.g. through the use of illicit drugs), positive subjective reports such as those in the hedonic tradition may not always be reflective of wellness. This would suggest that eudaimonic philosophers are more concerned with *why* someone is happy, rather than *if* someone is happy. Ultimately, this conceptualization maintains that well-being is not so much an outcome or end state, but instead is a process of fulfilling or realizing one's purpose (Henderson & Knight, 2012).

The six dimensions of psychological well-being. There are a number of eudaimonic models of well-being, the most popular being Ryff's Psychological Well-Being model (Ryff & Keyes, 1995). In this conceptualization, psychological well-being (PWB) is distinct from SWB, and instead is a multidimensional approach to the measurement of PWB that taps six distinct aspects of human actualization: autonomy, personal growth, self-acceptance, life purpose, environmental mastery, and positive relatedness. These six constructs define PWB both theoretically and operationally and they specify what promotes emotional and physical health (Ryff & Singer, 1998; Ryan & Deci, 2001).

Autonomy refers to the pursuit to seek a sense self-determination and personal authority while sustaining individuality within a larger social context (Keyes, Shmotkin, & Ryff, 2002). There is considerable emphasis in the prior literature on such qualities as self-determination, independence, and the regulation of behavior from within (Ryff,

1989). Individuation is seen to involve a deliverance from convention, in which the person no longer clings to the collective fears, beliefs, and laws of the masses. The process of turning inward in the later years is also seen by life span developmentalists to give the person a sense of freedom from the norms governing everyday life (Ryff, 1989).

Personal growth refers to making the most of one's talents and capacities (Keyes et al., 2002). According to Ryff, optimal psychological functioning requires not only that one achieve the prior characteristics, but also that one continue to develop one's potential, to grow and expand as a person. The need to actualize oneself and realize one's potentialities is central to the clinical perspectives on personal growth (Ryff, 1989).

Self-acceptance is defined as a central feature of mental health as well as a characteristic of self-actualization, optimal functioning, and maturity. Keyes and colleagues explain that people attempt to feel good about themselves even while aware of their own limitations (Keyes et al., 2002). Experts also emphasize acceptance of self and of one's past life (Ryff, 1989; Ryff & Singer, 2013). Thus, holding positive attitudes toward oneself emerges as a central characteristic of positive psychological functioning (Ryff, 1989).

Life purpose is described as a vital endeavor to find meaning in one's efforts and challenges (Keyes, Shmotkin, & Ryff, 2002). According to Ryff, one who functions positively has goals, intentions, and a sense of direction, all of which contribute to the feeling that life is meaningful (Ryff, 1989).

Environmental mastery is considered the way that individuals seek to shape their environment to meet personal needs and desires (Keyes et al., 2002). Additionally, it refers to one's ability to advance in the world and change it creatively through physical or

mental activities. This concept suggests that active participation in and mastery of the environment are important ingredients of an integrated framework of positive psychological functioning (Ryff, 1989).

Finally, positive relatedness refers to seek to develop and maintain warm and trusting interpersonal relationship (Keyes, Shmotkin, & Ryff, 2002). It also emphasizes the achievement of close unions with others and the guidance and direction of others. Throughout the literature, the importance of positive relations with others is repeatedly stressed in these conceptions of psychological wellbeing (Ryff, 1989). In all, each dimension of PWB articulates different challenges individuals encounter as they strive to function positively (Ryff, 1989a; Ryff & Keyes, 1995).

Applications of the psychological well-being model. Throughout the literature, there is empirical evidence of the Psychological Well-Being (PWB) Model being applied to diverse adult population. For example, Broman et al (2000) found that racism negatively predicted mastery and positively predicted psychological distress among African American adults. Folkman, Lazarus, Gruen, and DeLongis (1986) reported that mastery and interpersonal trust significantly predicted psychological symptoms, even after controlling for appraisal and coping variables in a Caucasian sample. This indicates that both mastery and positive relationships with others are important in preventing mental illness. Also, these studies suggest a model where mastery serves as a mediator in the racism-distress association (Yang, 2014). In a study examining the potential role of mastery, Moradi and Hasan (2004) found that sense of personal control (using the environmental mastery subscale of Ryff's psychological well-being measure) partially

mediated the relationship between discrimination and psychological distress in an Arab American sample. In another study of Latina/o Americans, Moradi and Risco (2006) also found that personal control (again using the environmental mastery subscale of the Ryff's psychological well-being measure) partially mediated the relationship between perceived discrimination and psychological distress. These findings indicate that discrimination can influence psychological distress both directly and indirectly through its negative effect on mastery (Yang, 2014).

Moving on, there are limited empirical studies that apply Ryff's model to younger age populations. In 1989, Ryff looked at age patterning and sex differences along the six dimensions of this model. In her comparison of young (18-29 years old; $n=133$), midlife (30-64 years old; $n=108$), and older-aged (65 years old or older; $n=80$) adults ($N=321$), Ryff found incremental increases in autonomy and environmental mastery (particularly from young adulthood to midlife) and decreases over time in personal growth and purpose in life (particularly from midlife to old age). However, no age differences were found for positive relations with others or self-acceptance (Ryff, 1989).

It is also important to mention that Constantine and Sue (2006) maintain that optimal psychological functioning cannot be separated from an individual's cultural context. Scholars have argued that the conceptualizations of positive psychology are rooted in the larger society's values and are therefore, culture bound (Constantine & Sue, 2006; Keyes et al., 2002; Lent, 2004). Ryff (1995) further reports that self-oriented dimensions of the PWB model, such as autonomy and self-acceptance are rooted in the Western, individualistic perspectives, whereas others-oriented dimensions of the model, such as positive relations with others are rooted in Eastern, interdependent perspectives.

As a result, self-oriented dimensions may not be entirely applicable to racial and ethnic minority individuals from collectivistic cultures unless such persons are fully acculturated to mainstream culture (Iwamoto, 2007; Ryff, 1995). However, in one study examining the development of psychological well-being among college students, it was found that African American students differed significantly from White students on only one dimension of PWB, such that they had lower levels of positive relations with others than White students (Bowman, 2010). Therefore there is not agreement on whether (or which) aspects of PWB are applicable for ethnic minority college students.

Recently Ryff's (1995) PWB model has been used with college students on a number of occasions (Glass, 2014; Ludban, 2015; Sun, Kaufman, & Smillie, 2017). For instance, in a 2016 study involving 1,072 university students, a latent profile analysis was applied to four indices of psychological well-being: self-acceptance, environmental mastery, purpose in life, and personal growth. An optimal four-profile solution, reflecting significant incremental shifts from low to very high psychological well-being, was obtained. Results showed the profile membership distinguished between participants in positive reappraisal, support-seeking, and planning. Importantly, the higher the profile of psychological well-being was, the higher the use of the three coping strategies. Gender differences in coping strategies were observed, but no interaction effects with psychological well-being were found. Age and degree were not relevant in explaining the use of coping strategies. These results suggest that psychological well-being stands as an important personal resource to favor adaptive coping strategies for academic stress (Freire, Ferradás, Valle, Núñez, & Vallejo, 2016).

Research on the well-being of minority or underrepresented college students has focused largely on adjustment processes that are specific to the college environment, such as college sense of belonging and social adjustment to college (e.g., Hurtado & Carter, 1997; Locks, Hurtado, Bowman, & Oseguera, 2008; Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002; Mounts, 2004). Although African American college students have been included in the sample of studies utilizing Ryff's (1995) PWB model, there is limited evidence of this model being applied solely to African American college student samples. Therefore, this study can fill this gap in the literature.

In summary, Ryff's PWB model is an appropriate measure of well-being for this current study because of its three key strengths. First, this model is multidimensional and theory-driven measure (Lent, 2004). Next, it is applicable for African Americans because the measure captures within-group differences, such as cultural affinity (Iwamoto, 2007). Additionally, empirical studies have applied this model when examining the experiences of diverse populations (Hurtado, Bowman, & Oseguera, 2008; Mendoza-Denton, Downey, Purdie, Davis, & Pietrzak, 2002). Finally, Ryff's model emphasizes human development and the existential challenges of life (Keyes et al., 2002), which is congruent with the eudaimonic perspective of well-being. Since college is described as a "time of substantial transition" (Bowman, 2010, p. 180), the PWB model was chosen for this study because it takes change into account.

Ultimately, PWB is an important goal for graduate students, as it is essential for them to advance and optimally functioning throughout graduate school. Unfortunately, research has shown that well-being can be impacted by discrimination in numerous

contexts. Therefore, in the next section, discrimination is defined, and the concepts of racial discrimination and microaggressions are then reviewed.

Discrimination

Discrimination can vary in form, depending on how it is expressed, by whom, and against whom, and it can occur in all aspects of life. According to Karlsen (2002), it can be divided into two main, but not mutually exclusive, types: interpersonal and institutional. Interpersonal discrimination refers to discriminatory interactions between individuals, which usually can be directly perceived. Institutional discrimination typically refers to discriminatory policies or practices embedded in organizational structures; therefore, it tends to be more invisible than interpersonal discrimination (Karlsen & Nazroo, 2002). Discrimination may result from a variety of factors including age, gender, sexual orientation, physical appearance, and social class (Carr & Friedman, 2005; Williams et al., 1997). A common form of discrimination is based on race/ethnicity, which is the focus of this project.

Racial Discrimination

Racial discrimination refers to "actions or practices carried out by members of dominant racial or ethnic groups that have a differential and negative impact on members of subordinate racial and ethnic groups" (Feagin & Eckberg, 1980, p. 1-2). Similar to other forms of oppression, racial discrimination is dynamic and complex, manifesting at

interpersonal, structural, and cultural levels (Speight, 2007). In recent years, it has become much more socially unacceptable for Americans to be overtly racist or discriminatory; thus, many individuals believe that they are not racist and that racial discrimination no longer exists (Sue, 2010). Despite this belief, previous authors have purported that while most people would not consider themselves to be racist (nor engage in hate crimes or blatantly racist activities), they may still hold racial biases and participate in subtle and unconscious racially motivated behaviors (Gaertner & Dovidio, 2006). The history of race and racial attitudes continues to influence the educational experience of students of color (Helm, 2013). Therefore, a brief history of racial discrimination in higher education is reviewed in the following section.

Brief history of racial discrimination in higher education. Throughout United States history, racial discrimination has been a deeply rooted issue in the higher education. Dating back to the pre-abolishment of slavery, in an effort to maintain White superiority in the South, the opportunities for Blacks had been determined largely by slave codes, one of which prohibited Blacks from learning how to read and write (Fleming, 1981). Recognizing the importance of education, many Blacks privately learned how to read and write despite barriers posed by southern laws (Hamilton, 2010). Secret schools and local churches served as venues for such education, and in rare instances, enslaved Blacks learned from their white masters (Brown & Yates, 2005). Blacks were viewed as genetically inferior and were thought to lack the natural ability to learn (Jenkins, 2007). Additionally, slaves were denied access to education as a means to preserve their low social standing. White slave owners ensured that their slaves would not

have the knowledgeable capacity to effectively resist the established social order.

Furthermore, in order to solidify African slaves as subordinate, state laws were passed to prohibit the education of slaves (Hannon, 2016).

Ultimately, Blacks began to realize the need of education so they began to create their own schools. Consequently, the 1850's saw the beginning of Historically Black Colleges and Universities (Hamilton, 2010). Historically Black Colleges and Universities (HBCUs) were established to help blacks increase their understanding of the value they provide in society by providing educational opportunities (Fleming, 1984). During the early 1850's, there had been only two Black colleges established and less than five percent of the 4.5 million African American population could read or write. Although a small percentage of slaves and freed slaves learned how to read and write, there was not a big push to educate blacks until after the Civil War (Fleming, 1984).

At the end of the Civil War, establishing educational institutions for freed slaves gained momentum (Fleming, 1984). In 1865, the Freedman's Bureau established an African American school system designed to help Blacks by providing educational opportunities. Unable to financially sustain themselves, most of these schools faltered due to the lack of state supported funding (Fleming, 1984). The withdrawal of Federal troops and the end of the reconstruction era marked the beginning of educational oppression for Blacks, who were steered towards vocational training and directed away from formal education. However, a turning point came when The 1890 Morrill Act was established, which federally mandated states to either admit Blacks into already established institutions or provide separate institutions for them to attend (Hannon, 2016). In 1896, the Supreme Court ruled, in the Plessey vs. Ferguson case, that Blacks and

Whites could be segregated as long as they both had equal access. As a result of this ruling, institutional racism was ingrained into law. Courts held that there was nothing unconstitutional about separating African Americans from White Only sections as long as they had equal accommodations (Hannon, 2016). However, the equality of opportunities for Blacks was far from the reality.

At the time of the Harlem Renaissance in the 1920s, about 10,000 American blacks — one in 1,000 — were college educated (Black Digest of Literature, 2010). Those who had the opportunity to pursue higher education were not provided with equal experiences and resources. For example, educational opportunities provided to Blacks limited them to working jobs at the bottom of the socioeconomic ladder. As time went on, these blatant inequalities became more apparent (Black Digest of Literature, 2010).

Consequently, in 1954, the landmark case of Brown vs. Board of Education declared that separate but equal was unconstitutional (Hannon, 2016). Ten years later, Title IV of the Civil Rights Act of 1964 officially over-ruled the 1896 "Separate but equal" Plessey vs. Ferguson case. This landmark Supreme Court case granted Blacks in the United States educational opportunities that were previously denied to them as a result of societal racism. Consequently, White colleges and universities were forced to racially integrate their schools (Hamilton, 2010). Today, evidence of racial discrimination is still very much prevalent throughout higher education for African American students (Beamon, 2014; Blaisdell, 2016; Torres-Harding & Turner, 2015).

African americans in higher education. There are compelling reasons to study racial discrimination among African American college students. Firstly, we are currently

seeing an increase in African American students attending post-secondary institutions. According to the U.S. Department of Education (2015), between 2000 and 2013, the percentage of college students who were Black rose from 11.7 to 14.7 percent. At the doctoral level we are also seeing an increase in individuals pursuing an obtaining doctoral degrees. According to NSF (2015), about 2,781 African Americans graduated with a doctoral degree in 2015 compared to 2,110 in 2005. More specifically, in 2015, 241 African American individuals graduated with a doctoral degree in psychology compared to 178 African Americans one year prior (NSF, 2014). According to NSF (2016), African Americans made up about 5.8% of psychology doctoral recipients in the year 2015-2016. In 2016, out of 3,946 doctoral recipients, only 232 were African American. According to APA (2016), there are about 1,700 African American/Black students currently enrolled in psychology-related programs at the doctoral level, making up about 5% of currently enrolled students in psychology. This shows evidence that there are still disproportionately low numbers of African Americans pursuing degrees compared to White students (U.S. Department of Education, 2015).

Nevertheless, this increase in minority enrollment has resulted in a more diverse campus climate at many universities. A more diverse campus climate creates opportunities for students, varying in ethnic and racial backgrounds, to interact with one another, however may lead to an increased opportunity in experiencing racial discrimination (Brezinski, 2016).

For African Americans, racial discrimination may occur prior to admission and throughout their time on campus. For instance, a quantitative study by Milkman, Akinola, and Chugh (2014) used an audit experiment methodology to examine how discrimination

manifests before individuals formally apply to organizations/institutions. A team of researchers measured discrimination by evaluating whether otherwise identical applicants for a valued outcome received different treatment when race and/or gender-signaling information (such as the name atop a résumé) was randomly varied. Results found that when considering requests from prospective students seeking mentoring, faculty were significantly more responsive to White males than to all other categories of students (Milkman et al., 2014).

Additionally, following admission, these experiences continue to occur for this population. For example, in one quantitative study comparing the experiences and perceptions of campus climate between 578 African American, Asian American, Latino/a, and White undergraduate students, it was revealed that while Asian American and Latino/a students reported some negative racial experiences, African American students reported more hostile racial experiences, more pressure to adhere to stereotypes, and more racial discrimination from faculty and staff. The White students reported the least amount of negative racial experiences and reported perceiving little to no racial conflict occurring within the campus climate (Harper & Hurtado, 2007).

Research also suggests that racial discrimination persists also when students become involved in campus leadership. Harper (2001) explored the racialized experiences of African American men leaders on predominately white campuses through focus group interviews with 52 Black male Resident Assistants (RAs) at six PWIs. Racist stereotypes and racial microaggressions, the complexities associated with “onlyness” in the RA position, and heightened scrutiny from White supervisors were among the findings reported in this study. Findings suggested that their status as student leaders on

their campuses still did not afford the immunity from the racist stereotypes that have been generally reported in other research on Black students. Unfortunately, many campuses may be unaware of the magnitude of problems faced by racial/ethnic groups in environments where they are underrepresented (Hurtado, & Ruiz, 2012). Ultimately it is crucial to not only be aware of the negative experiences of racial discrimination (e.g., microaggressions) among African American's in higher education, but also understand the impact this stressor may have on their well-being.

Racial Discrimination and Well-Being in Higher Education

Positive psychological well-being is fundamental in the life of college students (Renshaw & Cohen, 2014). However, racial discrimination may pose a threat to positive psychological functioning (Banks, 2010; Bynum, Burton & Best, 2007; Brown, Rosnick, & Segrist, 2016). It is important to mention that there are various forms of racial discrimination (e.g., microaggressions, stereotypes, etc.); however, for the purposes of this section, this term will be broadly referred to.

Racial discrimination refers to actions or practices carried out by members of dominant racial or ethnic groups that have a differential and negative impact on members of subordinate racial and ethnic groups (Feagin & Eckberg, 1980). According to Harrell (2000), racial discrimination has multiple manifestations. It can be experienced directly, vicariously, collectively, institutionally, and transgenerationally. Although the chronic condition of stress can have negative side effects on all persons, the unique psycho-social and contextual factors, specifically the common and pervasive exposure to racism and

discrimination, creates an additional daily stressor for African Americans. For instance, several studies have examined the relationship between racial discrimination and psychological stress and discovered higher rates for poor mental health or high rates of depression and anxiety among People of Color compared to Whites. (Cokely, Hall-Clark, & Hicks, 2011; Lambert, Herman, Bynum, & Ialongo 2009; Landrine, Klonoff, Corral, Fernandez, & Roesch, 2006; Hwang & Goto, 2008; Nadal, 2011; Smith, 2007). Among these same studies, several studies showed that African American students experienced more perceived racial discrimination when compared most ethnic groups, such as Latinx and Asian Americans (Cokely et al., 2011; Lambert et al., 2009; Smith, 2007). Often, African Americans do not realize daily stressors that may affect their psychological health (Utsey, Giesbrecht, Hook, & Stanard, 2008). Therefore, in this section, the influence of racial discrimination on the psychological well-being of African American undergraduate and graduate students is explored.

Undergraduate students and racial discrimination. In a study by Banks (2010), the relationship between racial discrimination and depressive symptoms among 194 African American undergraduate students from a large, Midwestern, state university was investigated, with a focus on whether college hassles moderated or mediated the relationship. College hassles were defined as "irritating, frustrating, distressing demands that to some degree characterize every day transactions with the environment" (Banks, 2010, p. 24). Depressive symptoms were conceptualized as one possible outcome related to the experience of daily hassles for African American students on a predominantly White campus. Results indicated the relationship between racial discrimination and

depressive symptoms were mediated by college hassles. This study suggests that by decreasing the experience of generic college hassles, the indirect relationship between discrimination and depressive symptoms might be minimized (Banks, 2010).

In addition to depressive symptoms, psychological functioning has also been investigated. Bynum and colleagues (2007) quantitatively explored racism experiences and psychological functioning in 247 African American freshman students. Results indicated that greater experiences with racism were associated with poorer psychological (Bynum et al., 2007). Furthermore, based on a study examining the lived experiences of 36 African American undergraduate college students at various PWIs, two major themes emerged: (a) anti-Black male stereotyping and marginality and (b) hypersurveillance and control (Smith, Allen, & Danley, 2007). Black males reported being placed under increased surveillance and control by community policing tactics on and off campus. Additionally, African American males were defined as being “out of place” and “fitting the description” of illegitimate members of the campus community. In response to these perceived racial microaggressions, African American male students reported having psychological responses (e.g., frustration, shock, avoidance or withdrawal, disbelief, anger, aggressiveness, uncertainty or confusion, resentment, anxiety, helplessness, hopelessness, and fear) (Smith, Allen, & Danley, 2007). Results showed these types of experiences could significantly endanger psychological stress and other symptoms of “racial battle fatigue” (e.g., frustration, shock, and anger) among the Black male undergraduates.

Similar results were also found in a study published exploring the relationship between specific coping strategies, life satisfaction, self-esteem, and overall levels of

stress (Utsey, Ponterotto, Reynolds, & Cancelli, 2000). When quantitatively examining the experiences of 213 undergraduates, students reported high volumes of racial microaggression incidents and strong psychological responses of frustration, shock, avoidance, withdrawal, disbelief, anger, anxiety, helplessness, hopelessness and fear when describing college experience (Utsey et al., 2000).

Research related to internalized racial discrimination is also important to discuss to understand racial discrimination and psychological well-being in higher education. According to Speight (2007), the internalization of racial oppression may be the most psychologically damaging result of racism. Speight explains that once racial oppression has been internalized, it may become self-sustaining such that an individual accepts notions of inferiority regarding one's group, identifies with the oppressor, and forfeits the ability to define oneself and one's life experiences (Speight, 2007). Brown, Rosnick, and Segrist (2016) investigated the relationship between internalized racial oppression, higher education values, academic locus of control (or set of beliefs regarding one's level of control over one's life outcome) and gender in a sample of 156 African American undergraduate college students. It is important to mention that individuals who have an internal locus of control tend to perceive that their life outcomes and achievements are largely influenced by their individual efforts, whereas individuals with an external locus of control believe that the environment largely determines their life outcomes. Results from this study suggested that African American men who internalized more racially oppressive beliefs were more likely to feel that they did not have control over their academic outcomes at a college level, and thus, placed less value and importance on higher education. However, it was interesting to find that this relationship was not

displayed in the majority of the sample size, which were woman participants. These results may be linked to the racially oppressive beliefs that African American men internalize versus women. Previous research findings indicate men may be more likely to internalize messages that could be linked to educational development, such as negative stereotypes (Brown & Segrist, 2015). Overall findings of this study support previous research suggesting that aspects of racial oppression may have an influence on an individual's sense of perceived control (Lambert et al., 2009)

It is important to point out the majority of research conducted on racial discrimination and psychological well-being on African American students has focused on undergraduate students. Therefore, research regarding graduate student experiences with racial discrimination is further reviewed in the next section.

Graduate students and racial discrimination. A recent study conducted by Perry and colleagues (2016) examined whether the psychological impact of racial discrimination on well-being depended on African American medical students' racial identity centrality and whether this process is explained by how accepted students feel in medical school (Perry, Hardeman, Burke, Cunningham, Burgess, & Ryn, 2016). This study is particularly interesting to examine because previous studies of African American medical students found that this population was at greater risk for poor well-being (depression and anxiety) and low self-esteem compared to their counterparts (Perry et. al., 2016). This is in part due to additional stressors related to their minority status and a lower likelihood of feeling like they will fit in and be accepted in their medical school environment. Results from Perry's (2016) study revealed that both

racial identity centrality (the extent to which a person normatively defines himself or herself with regard to race) and everyday discrimination were associated with negative outcomes. Specifically, as racial identity centrality increased, depression, anxiety, perceived stress, and fatigue increased and state self-esteem decreased. Similarly, as everyday discrimination increased, depression, anxiety, perceived stress, and fatigue increased and state self-esteem decreased (Perry et. al., 2016). Further research is needed to examine the extent to which other resources and stressors may affect well-being for African American students pursuing advanced graduate-level degrees (e.g., M.Ds, Ph.Ds).

In another study about microaggressions (a covert form of discrimination) and psychological functioning, Torres and colleagues (2010) conducted a study on racial microaggressions and their influence on mental health among African American doctoral students and graduates of doctoral programs (Torres et al., 2010). Using a mixed-methods approach, this study first identified the types of microaggressions reported by African American participants (N = 97) and then investigated the mechanism by which these experiences influence mental health over time. The qualitative findings revealed three categories of microaggressions. The first was Assumption of Criminality/Second-Class Citizen, which entailed racially motivated negative events in which the individual of color was thought to be doing something illegal or was treated as a lesser person. The second included “Underestimation of Personal Ability”, which involved stereotypes and negative perceptions regarding one’s capacity to succeed in academia. Lastly, “Cultural/Racial Isolation” referred to being singled out because of race or marginalization due to lack of same-race peers. The quantitative analyses found that

“Underestimation of Personal Ability” was associated with greater perceived stress at one-year follow-up, which in turn was related to greater depressive symptoms (Torres et al., 2010). Similar to what was discussed in the academic/student well-being section, stereotype threat may help to explain these results. Stereotype threat has been thought to be most impactful when individuals are invested in the domain where the stereotype applies. Thus, the domain of the “Underestimation of Personal Ability” may be more salient and carry a higher mental health risk for African American graduate students and professionals. This may be due in part to the underlying message or stereotypes that these events communicate and the potential threat to the individual’s goals (Torres et al., 2010).

The major quantitative findings from this study also showed that active coping served to ameliorate the experience of having one’s personal ability underestimated or ignored. Results from the Behavioral Attributes of Psychosocial Competence–Condensed Form (BAPC-C; Zea, Reisen, & Tyler, 1996) indicated that coping styles served as a protective factor for racial discrimination. Among African American doctoral students, the set of skills that allow individuals to take initiative appear to be a good match in counterbalancing the stress associated with this type of discrimination. The ability to take a proactive stance facilitates person-environment interactions (i.e., actively confronting stereotypes) and likely gives individuals a sense of competence in dealing with discrimination-related stressors, thus, reducing general levels of stress (Torres et al., 2010). As previously mentioned, similar studies should be conducted to provide additional information on racial discrimination towards graduate students.

In summary, literature has documented the harmful effects of racism on physical and mental health on specific racial groups (Perry et. al., 2016; Schwenk,

Davis, Wimsatt, 2010) Studies with African Americans have found that racism may be highly correlated with mental health issues, for example depression and stress (Banks, 2010). Additional impacts include frustration, shock, disbelief, hopelessness, and fear (Smith et al., 2007), as well as lower sense of perceived control (Lambert et al., 2009). Specifically, microaggressions have been shown to have similar psychological effects as overt racial discrimination, including increased psychological distress, depression, and stress (Ortega, 2017). Therefore, further examining the experiences of microaggressions and how this population copes with race-related stress is essential.

Microaggressions

More recently, there has been an increase in research focusing on more forms of racial discrimination such as microaggressions. These subtle forms of discrimination have a detrimental impact on the mental health of people of color, and African American college students in particular (Nadal, 2011; Sue, 2010). Racial microaggressions are subtle insults (verbal, nonverbal, and/or visual) directed toward people of color, often automatically or unconsciously (Solorzano, et al., 2000). Sue and Sue (2016) explain that microaggressions may sometimes seem innocent and innocuous, but their cumulative nature can be extremely harmful to the victims' physical and mental health. The subtlety of microaggressions includes the unconscious harboring of negative feelings and beliefs about historically disadvantaged groups (Dovidio & Gaertner, 2000). Additionally, it important to mention that these ambiguous and nebulous offensives may be manifested

behaviorally or verbally and have been theorized to occur in three distinct forms: microassaults, microinsults, and microinvalidations (Sue & Sue, 2016).

Microassaults. Microassaults refer to explicit, racially derogatory statements or actions intended to hurt the victim; they may or may not be violent, but are motivated by the conscious and purposeful intentions of their perpetrator. They are identified as “old-fashioned” racism, coined as transactions that were once overtly commonplace expressions in America, which are no longer acceptable in modern society. These transactions are considered an old way of thinking. An example of “old-fashioned” racism is calling someone a “nigger” or displaying the hood of the Ku Klux Klan, which are deliberate, conscious and explicit acts that were socially accepted expression in past but are presently deemed unacceptable (Helm, 2013). Microassaults often occur in closed settings with people who openly share the same beliefs or in situations that will allow the offender a degree of anonymity. The environment for this type of microaggression has to allow the offender to feel safe in committing the microassault. These harmful acts may be expressed when individuals are intoxicated, blaming inebriation for racial outbursts and loss of control (Helm, 2013). Sue et al. (2007) assert that this form of microaggression is the easiest to confront and identify due to their overt presentation; however occurs less frequently compared to the other levels of microaggressions which are discussed in the following sections.

Microinsults. One level of microaggressions includes microinsults. Microinsults convey rudeness, insensitivity, or otherwise demean the victim’s racial or cultural

heritage, though they need not be enacted explicitly. Microinsults are often categorized by the intentions of the offender and the impact on the offended. For example, microinsults include ascription of intelligence, assumption of criminal status, pathologizing cultural values/communication styles, and second-class citizenship.

Microinsults are hard to identify because they may occur consciously or unconsciously, and with malice or innocuous intent. As previously stated, microassaults are undeniable hurtful actions, while microinsults may have rational explanations (Helm, 2013). For example, when a white person says to a person of color, “Wow! You’re so articulate,” they may intend this as a compliment. However, for the person of color this statement may be interpreted as a back-handed compliment: “the speaker assumed that I would not be well spoken because people of my race are stereotyped as unintelligent or inarticulate” (Alabi, 2015, p.48).

Microinvalidation. Microinvalidations are characterized by communications that exclude, negate or nullify the psychological thoughts, feelings, or experiential reality of a person of color (Sue et al., 2007). Types of microinvalidations have involved being made to feel like an alien in one’s own land, being a perpetrator of racial color blindness, denying personal racism, and endorsing the myth of meritocracy (Sue & Sue, 2016). In this aspect of microaggression, the most common phrases heard by people of color are: “When I look at you, I don’t see color,” “We are all human beings,” “Don’t be oversensitive,” and “America is a melting pot.” These phrases typically do not have malicious intent, and do not set out to cause harm; however, they negate the reality of those asked to melt or become colorless. The invalidation of cultural experiences can

create great barriers to developing relationships (Butler-Byrd, 2010; Constantine, 2007; Nora & Cabrera, 1996; & Sue et. al, 2007).

While investigating the types of microaggression (microassault, microinsult, and microinvalidation), researchers have found a number of culturally-based, commonly held assumptions underlie these behaviors (Helm, 2013; Sue et al., 2007), including: colorblindness, over-identification, denial of personal or individual racism, the assumption of criminality, the myth of meritocracy (i.e., the belief that people's achievement or progress is dependent only on their abilities or talents, and not also on class, gender, or racial privilege), the pathologizing of cultural values, environmental invalidation, and the acceptance of a lower level of expectations for minority members (Sue et al., 2007; Constantine, 2007). It is also important to mention microinsults and microinvalidations are significantly different from microassaults in that they are not usually expressed intentionally by perpetrators because the racial biases and prejudices that underlie these behaviors are outside the perpetrators' conscious awareness (Banaji, 2001; DeVos & Banaji, 2005).

Microaggressions and African American College Students

A growing body of literature exists that has explored the effects of racial microaggressions on college students. In one qualitative study of 34 African American undergraduates (Solorzano, et al., 2000), many students spoke of feeling "invisible" within the classroom setting. An African American female student noted that being viewed as a numerical racial minority seemed to translate into being ignored in class: "I

think that when the professors see that there's fewer of you, they're less likely to address your concerns". The students in this study also shared their experiences that African Americans were omitted, distorted, and stereotyped in their course curriculum. For instance, a female student stated: "When she [the professor] gets to talking about the subject of racism, she doesn't say 'racism,' and I'm like, 'No, it's racism.' She doesn't quite understand." Other forms of microaggressions included white peers making indirect comments of affirmative action when they saw black students in advanced classes and asking black male college students if they are athletes (Solorzano, Ceja, & Yosso, 2000).

A recent study examined whether six dimensions of racial microaggressions (invisibility, criminality, low-achieving/undesirable culture, sexualization, foreigner/not belonging, and environmental invalidations) were associated with increased suicide ideation through perceived burdensomeness and thwarted belongingness among 135 African American college students. Results indicated that perceived burdensomeness, but not thwarted belongingness, mediated the relationship between three racial microaggression dimensions (i.e., invisibility, low-achievement/undesirable culture, and environmental invalidations) and suicide ideation. These results imply that for African American college students, experiencing certain dimensions of racial microaggressions was associated with higher levels of perceived burdensomeness, which in turn was related to increased levels of suicide ideation (Hollingsworth, Cole, O'Keefe, Tucker, Story, & Wingate, 2017).

Additionally, Sue, Nadal, Capodilupo, Lin, Torino and Rivera (2008) investigated racial microaggressions against African Americans using a qualitative approach. The researchers used two focus groups of 13 self-identified African American college

students (nine women and four men), both graduate and undergraduate, as well as four higher education professionals, to capture the experience of racial microaggressions, the given meaning of racial microaggressions, and emotional responses to different microaggressions. Six themes emerged representing the meaning of microaggressive incidents. These themes are: (1) assumption of intellectual inferiority, (2) second-class citizenship, (3) assumption of criminality, (4) assumption of inferior status, (5) assumed universality of the African American experience, (6) assumed superiority of white cultural values and communication styles and (7) underdeveloped incidents or responses. Several other studies have investigated the experiences of microaggressions among African American undergraduate students (e.g., Negga et al., 2007; Knauer, 2016; Hotchkins, 2016).

In all, more research regarding microaggressions among African American non-undergraduate college samples should be conducted. Additionally, further examining how African American cope with race-related stress is significantly important.

Coping with Race-Related Stress

Coping is one critical psychological process that concerns individuals' responses to stressors and life hassles (Lazarus & Folkman, 1984). Coping has garnered considerable empirical attention because of its mediating role in the relationship between stress and psychological well-being. Coping refers to "a person's cognitive and behavioral efforts to reduce a perceived threat or to manage emotions associated with

stress” (e.g., anger; Plummer & Slane, 1996, p. 302). Harnish, Aseltine, and Gore (2000) argue that effective coping terminates, minimizes or shortens the effects of the stressor.

Coping has been conceptualized as a multidimensional construct with at least two broad categories: problem focused and emotion focused coping (Lazarus & Folkman, 1984). The problem focused coping strategies involve efforts by an individual to obtain information and mobilize actions with the intention of changing the reality of the person-environment interaction (Lyon, 2000). These problem focused actions may be directed at either the environment (e.g., planning, taking control of the situation) or the self (e.g., changing the meaning of an event, recognizing personal resources or strengths; Lazarus, 2000). In contrast, the emotion focused strategies are aimed at regulating one’s emotional responses to stressful situations without changing the realities of the stressful situation. These strategies include distancing, avoiding, selective attention, blaming, minimizing, wishful thinking, venting emotions, seeking social support, exercising, and meditating. Unlike the problem focused techniques, emotion focused tactics do not alter the meaning of an event directly (Lyon, 2000).

Research has demonstrated the various ways in which African American college students have used emotion and problem focused strategies to cope with racial discrimination. Due to there being limited research examining coping strategies among graduate-level students, both undergraduate and graduate student coping are included in this review.

Emotion focused coping. One of the most commonly explored emotion focused coping strategies among African American college students is social support (Harper,

2009; Levin et al., 2006; Prelow et al., 2006; Solorzano et al., 2000). In one qualitative investigation with 143 Black male undergraduates at 30 Predominantly White Institutions (PWI) and universities across the USA, Harper (2009) found that when black male college students at PWIs are met with suspicion from professors who doubt their intellectual competence, as well as White peers who pass them over when selecting group members for collaborative work, many Black male students tend to become “detached” from academics. These students coped with these experiences by increasingly seeking out activities where there were more Black male role models and perceived opportunities. For instance one participant explained that joining a Black fraternity “added considerable value to my undergraduate experience” (p. 707). He then elaborated on the educational benefits conferred to him vis-à-vis meaningful community service endeavors in which his fraternity was engaged; the social support he received from his chapter brothers, which was often very necessary given the extreme Whiteness of the campus environment; how his fellow fraternity brothers were role models for him because they were among the most actively engaged student leaders at the institution; and the sense of peer-imposed accountability he felt to make good grades (Harper, 2009). Additionally, Harper (2009) noted that although African American students are unlikely to find supportive relationships outside their same-race peer groups at PWIs, Black men need them to achieve high levels of satisfaction with their college experiences. Therefore, for college students it appears that providing a social space to talk about the unique experiences for African American students is critical to promoting well-being. Additionally, mentors and peers seem to serve as positive outlets for students to discuss any issues that arise (i.e., microaggressions, overt racism, etc.).

In another study about social support, Levin, Laar, and Foote (2006) examined relationships among same-ethnicity friendships, perceptions of ethnic discrimination, and social and academic adjustment in college using a large longitudinal sample of White, Asian, Latino, and African American students. Results suggested that for African American students experiencing racial discrimination, having more in-group friends during college was related to enhance academic commitment and motivation at the end of college.

Furthermore, Cutrona and Russell (1990) have argued that for uncontrollable life events, emotional support is likely to be more important for the individual's well-being (Cutrona & Russell, 1990). For instance, in the event of a racist situation, if there is someone the victim can talk to (emotional support) then it is likely that the experience of the racism will have a less detrimental effect than if there is no one providing support specific to the racial situation (Yang, 2014).

Emotion focused coping such as acceptance and positive reframing are also generally viewed as being an adaptive emotion regulation strategy. Referring to work by Brooms (2016) exploring how race and gender matter on campus and how Black males navigate college for academic and personal success, African American male students used active and positive reframing coping strategies to help them deflect potentially frustrating experiences by being more focused on themselves and their efforts and goals.

Another type of emotion focused coping is avoidance coping (Hurst, 2010). Avoidant coping includes three aspects: (a) focusing on and venting of emotions, (b) behavioral disengagement, and (c) mental disengagement (Carver et al., 1989). Focusing on and venting of emotions indicates how distress is central in emotions without adaptive

behaviors. Behavioral disengagement stops one's struggling to deal with stress, and the stress still remains. For instance, sleeping away stress is an avoidant coping behavior (Carver et al., 1989). Mental disengagement puts stress out of sight by various activities ("out of sight, out of mind").

Avoidant coping may also serve as an important source of information about college students' well-being (Chao, 2011). According to Carver et al. (1989), avoidance responses to stress may tend to be maladaptive. Specifically, the tendency to focus only on venting frustration may be less useful to meet the demands of the situation. Additionally, Chao (2011) explained that students who perceive low support and frequently use avoidant coping may have the lowest scores in well-being. It is interesting to note that even with high social support, some college students may still use their own avoidant coping to manage their stress. Carver et al. (1989) suggested that some individuals habitually use avoidance or distraction to cope with stress. Lopez et al. (2001) found that avoidant coping is convenient, easy, and quick to use. Avoidance coping strategies have not been researched much in the literature concerning racial discrimination. However, it is an important coping mechanism to consider when thinking about race related stress (Hurst, 2010).

In one study, Hoggard, Byrd, and Sellers (2012) examined African American college students' appraisals and coping behaviors in racially and nonracially stressful situations. This study consisted of 35 participants who reported experiencing at least one racially stressful event and at least one nonracially stressful event during a 20-day diary study. It was found that Black college students used significantly more avoidance and rumination (emotion focused coping) in racially stressful compared with nonracially

stressful situations, in that racially stressful situations are more likely to elicit perceptions of discrimination (Hoggard et al., 2012). In other work examining the coping strategies used by 213 African Americans in managing the stressful effects of racism, avoidance coping was negatively associated with race-related stress (Utsey et al., 2000).

In summary, emotion focused coping strategies have been found to assist with the negative impacts caused by racial discrimination among African American college students. Social support, rumination, and avoidance are all examples of emotion focused coping. More research examining how African American graduate students cope with stress needs to be conducted to verify if these results are generalizable to this population.

Problem focused coping. Problem focused coping, also referred to as engagement coping, can be aimed at gaining primary control (i.e., efforts directed toward the problem). Problem focused coping is important to examine because research shows that among African American doctoral students, the ability to take a proactive stance (i.e., actively confronting stereotypes) facilitates person-environment interactions and likely gives individuals a sense of competence in dealing with discrimination-related stressors, thus, reducing general levels of stress (Torres et al., 2010). Though it may seem that problem focused coping would be the more favorable coping strategy, this is not always the case. Often, the usefulness and successfulness of a certain coping strategy is determined by the situation in which it is applied to (Chao, 2011).

In one of the few studies to examine the patterns of coping in racially stressful situations, Plummer and Slane (1996) asked 156 African American participants to first recall how they coped with a stressful situation they had experienced. Next, participants

were asked to recall how they coped with a situation in which they had experienced “racial stress.” Plummer and Slane found that African Americans used more problem focused coping and less emotion focused coping in the racially stressful event as compared with the nonracially stressful event. Results did not indicate if these specific coping strategies were found to be adaptive or maladaptive for this population, therefore additional studies should be conducted to fill this gap within the literature.

In another study (Lewis, Mendenhall, Harwood, & Hunt, 2013), focus groups were used to explore the interpersonal process of microaggressions among 17 Black women undergraduate, graduate, and professional students. According to this work, when students experienced a microaggression from someone in a position of power (e.g., professor or boss), many felt hesitant to directly confront the perpetrator (e.g., out of fear of the potential negative consequences (e.g., receiving a lower grade in a course, losing her job). However, some women shared that they felt more comfortable confronting the perpetrator when they were not in a position of power (e.g., friend or peer) (Lewis et al., 2013). The Black women who did confront the microaggressions experienced identified two types of resistance coping strategies, which represented active strategies that incorporated both cognitive and behavioral ways to deal with the situation. The first strategies were referred to as, “Using One's Voice as Power.” This theme refers to the process of actively speaking up and directly addressing a microaggression to the perpetrator as a way to regain power in the situation.

Alicia, a 26-year-old doctoral student shared her strategies to cope with gendered racial microaggressions (Lewis et. al., 2013). She stated: “Since I've been in graduate school when folks come at me the wrong way, I try to express myself to them because I

recognize that I should not have to manage my feelings and somebody else's. It's not fair to me...what that [speaking up] has done though is it's definitely typecast me as the angry Black woman because I am gonna say something. You're not gonna disrespect me, you're not going to make me feel like less than, and I think that has changed the way in which people perceive me” (Lewis et. al., 2013). This example highlights the active form of resistance that Alicia used to cope with negative experiences related to her race and gender. However, this quote also highlights Alicia's awareness that using her voice as power also has the potential cost of being perceived as an "Angry Black woman," which in itself is a gendered racial microaggression (Lewis et. al., 2013).

Another problem focused coping theme exemplified in this study was “Resisting Eurocentric Standards of Beauty.” This refers to behavioral strategies used to resist the Eurocentric standards of beauty and dominant ideologies that oppress Black women and contribute to their experiences with gendered racial microaggressions. This is a coping strategy in response to the forms of environmental (e.g., institutional, structural, cultural, and societal messages) gendered racial microaggressions Black women experience, such as cultural messages about what is beautiful and desirable. Some Black women in the focus groups reported resisting these Eurocentric standards of beauty (Lewis et. al., 2013).

Tonya, a 26-year-old graduate student stated: “I didn't become natural [her hairstyle] until I was an undergrad and for me personally it was taking African American studies courses...my choice to go natural was more to fight against what Black women have to face all the time, being compared to a White European model as sort of the ideal of beauty, and so that was just a personal choice that I made” (Lewis et. al., 2013). These

are two examples of problem focused coping in which students directly engaged with the microaggression or stressful event at hand.

In another study about coping with race-related stress, in Harper's (2009) study examining the experiences of 143 Black male undergraduates at 30 predominantly White colleges and universities, a participant recalled an instance when a White faculty member was offensively shocked by a thoughtful contribution he made to a class discussion. The participant explained that instead of leaving class with the psychological burden of wondering if the professor was so surprised because he didn't expect a Black man to have anything smart to contribute, he asked the faculty member right then and there why he was so visibly astonished (Harper, 2009).

Additionally, another participants explained: "Whenever White students would say something that was even remotely racist or stereotypical, I would call 'em on it immediately. I refused to let them get away with it. I was also unwilling to be stuck with the emotional internalization of their stupidity. As a self-protective strategy, I confronted it without making it seem like I was confronting them, per se. I did this by asking questions like, 'why did you assume I would know where to buy weed? Or what made you think I was an athlete?' This was an effective approach that forced them to examine their own misconceptions about Black men; but more importantly, it protected me" (Harper, 2009). This strategy of directly confronting microaggressions falls under the problem focused coping because it tackles the problem that is causing stress (e.g., stereotypical comments), consequently directly reducing the stress for this individual.

In a quantitative study (2003) study examining college students experiences with racism among 51 African Americans, participants overall were more likely to respond in

some manner, with 42% ($n = 14$) directly addressing the racial offense (Swim, Hyers, Cohen, Fitzgerald, & Bylsma, 2003). The more the incidents were personally directed at participants, the more likely they were to directly respond, and the more the incident was described as being directed at another particular person, the less likely participants were to directly respond (Swim et. al., 2003). This literature shows evidence of the various factors that may contribute to taking a problem focused coping response when experiencing racial discrimination or microaggressions. However, similar to previous studies, it is unknown if this coping responses were adaptive or maladaptive for this sample.

Conclusions about coping. Coping has also been found to be important in the context of racially stressful events (Gaylord-Harden & Cunningham, 2009; Noh, Beiser, Kaspar, Hou, & Rummens, 1999; Utsey, Bolden, Lanier, & Williams, 2007) and may be a mechanism by which racially stressful events impact the well-being of individuals (Harrell, 2000). Throughout the literature, emotion focused and problem focused coping are the most discussed when examining racial discrimination (Harper, 2009; Levin et al., 2006; Prelow et al., 2006; Solorzano et al., 2000).

Based on a non-college sample study conducted by Plummer and Slane (1996) examined the coping behaviors of African Americans in racially stressful situations, researchers found that African Americans engaged in more problem solving coping mechanisms; however, use multiple coping strategies in order to handle race-related stressors they are exposed to. Additionally, it has been suggested that some individuals may use combinations of both emotion focused and problem focused strategies to address

the same stressful encounter (Lazarus & Folkman, 1984). Therefore, the research suggests that multiple coping mechanisms are important to examine when examining how this population copes with racial discrimination.

Additional, when examining gender differences and coping, research carried out by Folkman and Lazarus (1980) and Hamilton and Fagot (1988) found no gender difference in relation to the use of problem focused and emotion focused coping. However Stone and Neale (1984) found that men are more likely to take direct action and engage in problem focused coping strategies. Furthermore, in study conducted by Brougham and colleagues (2009), the sources of stress (academics, financial, family, social, and daily hassles) and coping strategies (self-help, approach, accommodation, avoidance, and self-punishment) of 166 college students were examined. The relationship between sex, specific sources of stress, and coping strategies was also investigated. Results found that college women reported a higher overall level of stress and greater use of emotion focused coping strategies than college men. College men and women also reported different coping strategies for different stressors; however the use of emotion focused coping strategies dominated over problem solving strategies for both men and women (Brougham et al., 2009).

Most of the research to date has focused on undergraduate samples (Brougham et al., 2009; Lewis et. al., 2013; Swim et. al., 2003), however a few studies have investigated coping with racial discrimination among graduate students (Shah, 2008; Torres et al., 2010). Shah (2008) is one of the few studies that specifically explored problem focused or emotion focused coping strategies among African American graduate students who experienced racial discrimination. Shah (2008) investigated the impact of

perceived racial and ethnic discrimination occurring in academia and effective methods of coping with perceived racial/ethnic discrimination among 10 women of color in graduate education. Results demonstrated that while women of color experienced a wide range of racism/discrimination, overwhelmingly they experienced microaggressions – mainly a lack of visibility and minimization of racial/cultural issues. Although it is unknown if coping factors were effective or not, strategies included a variety of emotion focused and problem focused strategies, but highlighted social coping (e.g., emotion focused coping; seeking social support).

Furthermore, it is important to mention there have been inconsistencies with definitions even within specific coping domains. For example, seeking social support when confronted by racism has been considered an approach coping strategy (Sanders-Thompson 2006; Scott 2004; Scott & House 2005), a problem focused coping strategy (Noh and Kaspar 2003; Plummer and Slane 1996), an emotion focused strategy (such as when seeking emotional social support) (Tull et al. 2005), an avoidance strategy (if it involves venting, but no direct confrontation), and a strategy in an entirely separate category (Danoff-Burg et al. 2004; Swim et al. 2003; Utsey et al. 2000).

Along with emotion and problem focused coping strategies, the use of certain coping styles and strategies appears to depend on personal characteristics and the ways they appraise the nature of an event and situational factors are appraised (Lazarus & Folkman, 1984). For example, particular types of coping strategies are more or less effective, according to the type of stress encountered (Dempsey, 2002). Plummer and Slane (1996) pointed out that some coping strategies that may be viewed as maladaptive (e.g., avoidance or distancing) or adaptive under some circumstances and some coping

strategies that are viewed as adaptive may be maladaptive under other circumstances.

Although a definitive conclusion has not been reached about how African American students cope with race-related stress, in general, college students' coping strategies that use action, acceptance, and positive reframing in response to stress are found to be adaptive, while coping strategies that use avoidance and emotional expression in response to stress are found to be maladaptive (Brougham, Zail, Mendoza, & Miller, 2009).

However, throughout the literature, many studies fail to investigate if the coping strategies used by African American college students assist with mitigating race-related stress. Nevertheless, it is important to mention that no coping strategy has emerged as a clearly successful strategy for offsetting the psychological health impacts of racial discrimination. Instead, each approach has some demonstrated strengths, but also considerable limitations (Brondolo, Brady, Pencille, Beatty, & Contrada, 2009). In all, although there is more research regarding emotion focused coping, due to the lack of research among graduate students, both emotion focused and problem focused coping strategies should be taking into consideration.

Hence, in the current project, both problem focused and emotion focused coping responses of African American doctoral students are examined. This population represents an important group of individuals who, in order to succeed (and graduate), must overcome the daily challenges of interacting in an environment in which they are traditionally underrepresented (Torres et al., 2010). As individuals who have successfully advanced to the highest level of post-secondary education, further understanding how this population copes with these experiences is critical to advance research in this area. Additionally, research on strategies for coping with racism is necessary to empower

targeted individuals to develop and choose methods that are effective at reducing discrimination and buffering the impact of racism on psychological health and well-being (Brondolo et al., 2009).

Sense of Belonging

Sense of belonging is another construct, which, similar to coping, may serve to help individuals mitigate the negative impacts of racial discrimination. Sense of belonging also been referred to as the need for affection between people (Murray, 1938), the need for positive regard from others (Rogers, 1951), belongingness (Baumeister & Leary, 1995; Goodenow, 1993; Maslow, 1954), affiliation motivation (McClelland, 1987), and the need for relatedness (Deci & Ryan, 1991; Ryan, 1993; Vallerand, 1997). Sense of belonging within a university campus refers to ‘students’ perceived social support on campus, a feeling or sensation of connectedness, the experience of mattering or feeling cared about...to others and the campus” (Strayhorn, 2012, p. 3).

Baumeister and Leary (1995) suggested that the need to belong is characterized by a need for regular contact and the perception that the interpersonal relationships have stability, affective concern, and are ongoing (p. 500). In their seminal article on the importance of sense of belonging to wellbeing, they proposed the ‘belongingness hypothesis,’ suggesting that, “human beings have a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships” (p. 497). Failure to have belongingness needs met may lead to feelings of social isolation, alienation, and loneliness (Baumeister & Leary, 1995).

Furthermore, in their detailed analysis of the relevant research, Baumeister and Leary argue that the need for belongingness is more than the need for social contact. It is the need for positive and pleasant social contacts within the context of desired relationships with people other than strangers (Baumeister & Leary, 1995). The need for belonging is satisfied by an interpersonal bond marked by “stability, affective concern, and continuation into the foreseeable future” (p. 500). As Kelly (2001) points out, some people with lower need to belong may be satisfied by few contacts, while others with greater need to belong may need many such contacts. However, overall, the relational context of interactions with other people is essential for satisfying the need to belong.

For college students, one reason sense of belonging is important is due to its impact on attrition. For instance, Morrow and Ackermann (2012) conducted a quantitative study among 960 undergraduate college students to determine if motivation and belonging influenced a student’s intention to persist in college. Their study revealed that the students who reported greater faculty support were more likely to report intention to persist to graduation. In addition, students who reported greater peer support during their first year were more likely to return for their sophomore year (Morrow & Ackermann, 2012). Additionally, Hausmann, Schofield, and Woods (2006) described an intervention study to increase undergraduate students’ sense of belonging at college. Their results indicate that enhancing sense of belonging predicted intention to persist to graduation among students who identified as African American. Furthermore, O’Meara, Griffin, Kuvaeva, Nyunt, & Robinson (2017) recently conducted a study examining sense of belonging among graduate students. Results found that sense of belonging influenced student retention and success.

Many studies have focused on the concept of sense of belonging in the majority White student population and some have turned their attention to underrepresented groups (Franklin, 2008). Specifically for students of color, various scholars (Hausmann et al., 2007; Strayhorn, 2012; Tinto, 2012) have argued that sense of belonging contributes positively to the persistence of students, though they often experience the stress of racism that could discourage them from wanting to persist (Gibson, 2014).

Despite the importance of feelings of belonging on a college campus, research suggests that some students may have difficulty finding that connection in their educational environment due to racial discrimination. According to experts, African American students experience “doubts about belonging” at predominantly White institutions (PWIs) that have historically excluded them (Ostrove & Long, 2007). Additionally, from the literature, African American students’ sense of belonging hinges in large part on interacting with peers from different racial/ethnic groups (Strayhorn, 2008). However, research shows evidence that their belongingness is constantly threatened by the reinforcement of racist stereotypes that stigmatize them (Strayhorn, 2008).

Research has established that experiences of discrimination negatively affect sense of belonging and retention, even among the most high-achieving Black students (Chang, Eagan, Lin, & Hurtado, 2011). For instance, Gallien (2007) notes that African American students may have a difficult time identifying with the university when there is a culture clash. At some universities, culture clash goes beyond having interests that differ from the majority population. Instead, Gallien (2007) discusses institutionally sanctioned symbols that may cause minorities to feel uncomfortable. He used as

examples the University of Mississippi and the University of Georgia where they continue to sanction events or symbols that are representative of the confederacy or “old south.” For some students, such events may represent symbols of previous oppression and discrimination (Jones, 2013).

Additionally, Franklin (2008) conducted a quantitative study finding that African American undergraduate students demonstrated that their academic sense of belonging significantly predicted their level of stress. For students of color, the academic setting had a far greater impact on their level of stress. In addition, African American student’s sense of belonging was significantly predicted by racial/ethnic discrimination. As expected, racial/ethnic discrimination negatively affected how an individual relates to their surrounding environment. Franklin argued that racial discrimination might not necessarily imply stress. Instead, when institutional fit and sense of belonging is low, stress for the student may be high (Franklin, 2008).

While sense of belonging has been studied as an outcome variable or mediator within the context of racial discrimination, few studies have examined sense of belonging as a moderating variable. In one study that investigated sense of belonging as a moderator among Asian American and Asian international college students (Iwamoto & Liu, 2010), the direct and moderating effects of racial identity, ethnic identity, Asian values, and race-related stress on positive psychological well-being was studied. Results revealed that the racial identity statuses (Internalization, Immersion-Emersion, Dissonance), as well as their Asian values, Ethnic Identity Affirmation, and Belonging were significant predictors of well-being. However, Asian values, Dissonance and Conformity were the only variables found to moderate the relationship between race-related stress on well-being

(Iwamoto & Liu, 2010). The stronger sense of ethnic affirmation and belonging most likely accounted for the positive relationship of these identity variables with the Scale of Psychological Well-Being (SPWB; Ryff, 1989). For instance, individuals who have higher levels of ethnic identity affirmation and belonging may have more trusting and warm relationships with others and feel validated by members of their ethnic group and, thus be more accepting of themselves (Iwamoto & Liu, 2010).

Taken together, sense of belonging has shown to be an important variable in the lives of African American college students. Additionally, perceptions of the campus racial climate have a significant relationship to students' sense of belonging. However, further research is still needed to examine how sense of belonging may impact the graduate student experience when faced with racial discrimination (e.g., microaggressions). Additionally, sense of belonging has primarily involved experiences on campus, however for doctoral students, sense of belonging within their academic program may also be important to examine. Previous research has found that factors such as a sense of belonging within a program are also related to graduate student retention (Hahs, 1998; Lovitts, 2005). Therefore, the additional factor of examining student's sense of belonging within their program is included in this study.

Furthermore, due to the impact sense of belonging has on retention and well-being (Morrow & Ackermann, 2012; Franklin, 2008), it is important to further explore sense of belonging in students of color. Additionally, based on Chun et al.'s (2006) stress and coping model (Figure 1), sense of belonging fits well within the cognitive appraisal and coping skills (Panel IV) component, and may help explain additional variables that buffer the negative impacts of microaggressions on well-being.

Conclusion

Empirical research has shown that the experience of being treated unfairly or discriminated against is associated with reduced mental health (e.g., Barnes, Mendes de Leon, Wilson, Bienias, Bennett, & Evans, 2004; Kessler, Mickelson, & Williams, 1999; Noh, Beiser, Kaspar, Hou, & Rummens, 1999; Williams, Yu, Jackson, & Anderson, 1997). In regards to African American doctoral students, there is evidence that this unique population experiences racial discrimination, and more specifically microaggressions, which have been shown to pose a threat to positive psychological functioning (Banks, 2010; Bynum et al., 2007; Brown et al., 2016), and may impact and preclude African American students from meeting their occupational goals (Tovar-Murray et al., 2012).

Coping is one critical psychological process that may mitigate the impact microaggressions may cause on well-being (Lazarus & Folkman, 1984), as research has shown that emotion and problem focused coping may help with racial discrimination (Lewis et. al., 2013; Yang, 2014). Sense of belonging has been shown to impact retention and well-being (Morrow & Ackermann, 2012; Franklin, 2008), however more research needs to be conducted to see if this variable may serve as a buffer against the negative effects of racial discrimination. Currently, there is limited research examining how coping strategies and sense of belonging may impact the psychological well-being of African American doctoral-level students, let alone those in psychology (Lewis et al., 2013). As individuals who have successfully advanced to the highest level of post-

secondary education, further understanding how African American doctoral students in psychology cope with these experiences is critical to assist with academic advancement, retention efforts, and workplace diversity.

CHAPTER III

METHODOLOGY

This chapter provides information on the research methods of this study. The research methods were selected to investigate the relationship between racial microaggressions, sense of belonging, coping, and psychological well-being among African American doctoral students in psychology in the U.S. This chapter will review the sampling process, define the measurements, examine the process of data analysis, and discuss the hypotheses.

Design

As described in Chapter 2, experiencing racial microaggressions may produce discomfort and negative psychological outcomes. Therefore, it would have been unethical to subject participants to such events in a designed experiment. Consequently, the design used in this study was a non-experimental, correlation design. When examining the relationship between independent and dependent variables, such as microaggressions and psychological well-being, correlational designs have been consistently utilized throughout the literature (e.g., Helm 2013; Knauer, 2016; Sellers, Copeland-Linder, Martin, & Lewis, 2006). The design of this study captured the phenomenon being explored because it examines actual experiences of individuals in the population of interest. Furthermore, since the aim of this study was to explore the relationships amongst the proposed variables, a correlational design was appropriate.

Utilizing SPSS Statistics software, descriptives, correlations and a multiple regression analysis was conducted to examine: 1) the frequency of racial microaggressions experienced, 2) the impact of microaggressions on psychological well-being, and 3) how coping strategies and sense of belonging may moderate these effects.

Participants

To participate in this study, individuals were required to meet the following criteria: self-identified African American, at least 18-years old or older, currently enrolled in a doctoral-level (PhD, EdD, or PsyD) psychology program (e.g., clinical counseling, educational, cognitive, experimental, social, industrial-organizational, community, and developmental psychology) in the United States. Participants were excluded from the study if they did not attend a college or university within the United States and/or did not finish the survey. After Institutional Review Board (IRB) approval (APPENDIX A), participants were recruited from psychology doctoral degree-granting institutions within the United States through social media networks, student campus groups, academic department dissemination, ethnic minority groups/organization, and word of mouth. Self-identified males and females from all institutions (including HBCUs and PWIs) were included.

For the purpose of this study, participants were referenced to as African American, although some researchers have included the term Black (Helm, 2013). However, based on the traditional literature, the category of African American best represents the students selected for this study. Individuals who are multiethnic, and first

generation American born African students are included as well if they identified their selves as Black or African American.

Participant demographic data. Participants were 155 African American doctoral students (123 female, 32 male) from various doctoral programs throughout the United States. Participant ranged in age from 22-69, with 29.75-years-old being the average age ($SD=7.2$). Although all participants indicated that they primarily identified as African American/Black, some respondents also noted being multicultural/multiethnic ($n=18$). For instance, 3% ($n=5$) of participants identified being African American/Caucasian, 1% ($n=2$) were African American and Mexican, 0.06% ($n=1$) of participants were African American and Chinese, 0.06% ($n=1$) were African American and Portuguese, 0.06% ($n=1$) were African American and Irish, 0.06% ($n=1$) were African American, Japanese, and White, 0.06% ($n=1$) were African American and Pacific Islander, 0.06% ($n=1$) were Afro-Caribbean American, 0.06% ($n=1$) identified as Black and Native American, 0.06% ($n=1$) were Caribbean, 0.06% ($n=1$) identified as Multiracial/Black, 0.06% ($n=1$) noted being Nigerian American, and 0.06% ($n=1$) did not specify their biracial status. This data can be found in Table 4.0. In regards to relationship status, 52% of participants ($n=81$) identified being in a relationship while 48% of participants ($n=74$) noted not being in a relationship (See Table 4.1).

Table 4.0*Participants by Race/Ethnicity*

| Race/Ethnicity | <i>N</i> | Percentage (%) |
|---------------------------------------|-----------------|-----------------------|
| Black/African American | 137 | 88.4 |
| African American/Caucasian | 5 | 3.00 |
| African American and Mexican | 2 | 1.00 |
| African American and Chinese | 1 | 0.06 |
| African American and Portuguese | 1 | 0.06 |
| African American and Irish | 1 | 0.06 |
| African American, Japanese, and White | 1 | 0.06 |
| African American and Pacific Islander | 1 | 0.06 |
| Afro-Caribbean American | 1 | 0.06 |
| Black and Native American | 1 | 0.06 |
| Caribbean | 1 | 0.06 |
| Multiracial/Black | 1 | 0.06 |
| Nigerian American | 1 | 0.06 |
| Did Not Specify | 1 | 0.06 |

Table 4.1*Relationship Status*

| Relationship Status | <i>N</i> | Percentage (%) |
|----------------------------|-----------------|-----------------------|
| In a Relationship | 81 | 52.0 |
| Not in a Relationship | 74 | 48.0 |

Program demographic data. Table 4.2 displays the program regions of this particular sample. Thirty-three percent were from the South ($n=51$), 32% of participants were from doctoral programs in the Midwest ($n=50$), 18% were from the Northeast ($n=28$), and 17% were from the West ($n=26$). Eighty-one percent of participants were enrolled in Doctor of Philosophy (Ph.D) programs ($n=125$), 15% ($n=24$) noted that they were in Doctor of Psychology (Psy.D) programs, and 4% ($n=6$) identified being enrolled

in Doctor of Education (Ed.D) programs. Additionally, 61% ($n=95$) of respondents identified attending a public institution and 39% of respondents noted attending a private institution.

Table 4.2

Participants by Region

| Region | <i>N</i> | Percentage (%) |
|---------------|-----------------|-----------------------|
| South | 51 | 33.0 |
| Midwest | 50 | 32.0 |
| Northeast | 28 | 18.0 |
| West | 26 | 17.0 |

In regards to years in program, 14% of participants ($n=21$) indicated they were in their first year, 19% ($n=29$) were in their second year, 21% ($n=33$) were in their third year, 15% ($n=24$) were in their fourth year, and 31% ($n=48$) were in their fifth year or greater.

Types of psychology degree programs varied: 37% of participants ($n=57$) were enrolled in a Clinical Psychology program, 25% ($n=38$) were in Counseling Psychology, 14% ($n=21$) identified being enrolled in an “Other” psychology doctoral program, 8% ($n=12$) were in Educational Psychology, 7% ($n=10$) were in Social Psychology, 4% ($n=6$) were in Developmental Psychology, 3% ($n=5$) were in Industrial Organization Psychology, 2% ($n=3$) were in Cognitive Psychology, and 2% ($n=3$) were in Community Psychology (see Table 4.3).

Students enrolled in “Other” doctoral-level psychology-based programs ($n = 21$) were comprised of: 7% ($n=11$) in School Psychology, 1% ($n=2$) in Clinical-Community Psychology, 1% ($n=2$) in Personality and Social Contexts, 0.06% ($n=1$) in Clinical

Forensic Psychology, 0.06% ($n=1$) in Marriage and Family Therapy, 0.06% ($n=1$) in Organizational Leadership and Innovation, 0.06% ($n=1$) in Personality Psychology, 0.06% ($n=1$) in Social Psychology and Law, and 0.06% ($n=1$) of participants did not specify their program (see Table 4.4).

Table 4.3

Participants by Program

| Graduate Degree Program | <i>N</i> | Percentage (%) |
|------------------------------------|-----------------|-----------------------|
| Clinical Psychology | 57 | 37.0 |
| Counseling Psychology | 38 | 25.0 |
| Other | 21 | 14.0 |
| Educational Psychology | 12 | 8.00 |
| Social Psychology | 10 | 7.00 |
| Developmental Psychology | 6 | 4.00 |
| Industrial Organization Psychology | 5 | 3.00 |
| Cognitive Psychology | 3 | 2.00 |
| Community Psychology | 3 | 2.00 |

Table 4.4

Participants in "Other" Programs

| Graduate Degree Program | <i>N</i> | Percentage (%) |
|------------------------------------------|-----------------|-----------------------|
| School Psychology | 11 | 7.00 |
| Clinical-Community Psychology | 2 | 1.00 |
| Personality and Social Contexts | 2 | 1.00 |
| Clinical Forensic Psychology | 1 | 0.06 |
| Marriage and Family Therapy | 1 | 0.06 |
| Organizational Leadership and Innovation | 1 | 0.06 |
| Personality Psychology | 1 | 0.06 |
| Social Psychology and Law | 1 | 0.06 |
| Did Not Specify | 1 | 0.06 |

Participants indicated that the percentage of African American students in their programs ranged from 0-100%, with 18% being the average across the sample ($SD=23.6$). Additionally, the average percentage of ethnic minority (but not African

American) students in participants' programs was 21%, with percentages ranging from 0-98% ($SD=24.3$). The percentage of African American faculty in participants' programs ranged from 0-99%, with 15% being the average ($SD=23.5$). Additionally, the average of faculty in participants' programs who were ethnic minority (but not African American) was 19%, with percentages ranging from 0-100% ($SD=27.4$) (See Table 4.5).

Table 4.5

Racial/Ethnic Diversity of Students and Faculty in Participants Programs

| Racial/Ethnic Status of Student/Faculty | Range | Mean | Median | <i>SD</i> |
|--------------------------------------------------------|--------------|-------------|---------------|------------------|
| African American Students | 0-100% | 18% | 10% | 23.6 |
| Ethnic Minority Students (But Not African American) | 0-98% | 21% | 14% | 24.0 |
| African American Faculty | 0-99% | 15% | 5% | 23.5 |
| Ethnic Minority Faculty (But Not African American) | 0-100% | 19% | 8% | 27.0 |

Instruments

For this study, several evidence-based instruments were used to measure the constructs of microaggressions, sense of belonging, coping, and psychological well-being. The psychometric properties, including its domains, subscales, format, reliability, and validity were also discussed.

Demographics questionnaire. A demographic questionnaire (Appendix D) was provided to participants to identify: gender, age, race, ethnicity, relationship status, level

of education, degree sought (e.g., Ph.D, Psy.D, or Ed.D), program type (e.g., clinical, counseling, I/O, etc.), and year in doctoral program. Additional questions included: college/university region (e.g., Midwest, Northeast, South, or West), percentage of African American faculty/staff in the program, percentage of African American students in the program, percentage of ethnic minority faculty/staff in the program, and percentage of ethnic minority students in the program.

Racial and ethnic microaggressions scale. The Racial and Ethnic Microaggressions Scale (REMS; Nadal 2010; Appendix E), also known as the REMS-Checklist, was used to measure microaggressions. This instrument is a 45-question self-report inventory used to measure the type and frequency of experiences with racial microaggressions in work place and academic settings. This checklist requires a dichotomous response on 45 statements (Helm, 2013). The REMS-45 offers a quick, comprehensive measure of experiences with microaggressions and can be helpful in understanding the impacts of microaggressions on physical health and mental health.

Currently, the REMS is widely used throughout racial/ethnic stress literature (Torres-Harding & Turner, 2015; Forrest-Bank & Jenson, 2015; Williams, Oliver, Aumer, & Meyers, 2016; Torres & Taknint, 2015). Due to this measure being validated among a diverse sample, including African Americans, it serves as an acceptable measure to utilize for this study.

To develop the REMS, a team of 13 researchers was gathered to create an initial pool of items. First, the researchers worked autonomously, with the task of producing as many items as they could for each theme. Then, the team voted on the items that were

most representative of the eight original categories (i.e., there were approximately 15–20 items per category). Finally, the team randomized the items into one random, uncategorized list, which is henceforth referred to as the Racial and Ethnic Microaggression Scale-Initial Version (REMS-I) (Nadal, 2011).

The REMS-45 consists of six subscales, including (1) Assumptions of Inferiority, (2) Second- Class Citizen & Assumption of Criminality, (3) Microinvalidations, (4) Exoticization & Assumptions of Similarity, (5) Environmental Microaggressions, and (6) Workplace & School Microaggressions. In the scale development and validation study with over 500 racially and ethnically diverse student sample population ($N=506$), the six subscales of REMS demonstrated sufficient reliability coefficients and sound internal consistency.

For the purposes of this study, various items on the REMS were tailored to students' academic program (e.g., item 11; "I received substandard assistance in my program compared to students of other racial groups"). However, some items regarding environmental microaggressions (e.g., item 19; "I observed people of my race portrayed positively on television") pertained to microaggressions occurring in the external environmental rather than microaggressions occurring within the academic program. These select items were not altered to maintain strong validity and reliability.

For statistical analysis, the total scale of this instrument was utilized for multiple reasons. First, previous research (Torres & Taknint, 2015) has shown that analyzing the full scale of this instrument is acceptable. Second, for this study the researcher was particularly interested in the frequency of microaggressions that students experienced rather than the types of microaggressions perceived. Last, it was most practical to use the

total score rather than add additional subscale variables which would have required a larger sample size.

Testing for concurrent validity, the REMS-45 was compared to the Racism and Life Experience Scale-Brief Version (RALES-B). The RALES-B is a short (and more widely used) version of the Racism and Life Experiences-Self Administration Version (RALES-S; Utsey, 1998). This nine-item instrument is a self-report measure of perceptions of racism by a person of color and the impact and stress that racism has on an individual's personal life (Utsey, 1998). The scale measures the degree to which an individual perceives whether racism affects their self and identified racial group. The REMS-45 was positively correlated with the RALES-B ($r = .46$, $N = 376$, $p < .001$).

Due to the sufficient reliability coefficients and sound internal consistency of this self-report measure, it was very practical to use for the purposes of this study. To test construct validity, or whether the scale was accurately measuring microaggressions, participants were asked to describe what they thought the questions were trying to measure, as well as three keywords that represented the items that were listed. Using a content analysis method (Hsieh & Shannon, 2005), a sub-team of five researchers worked independently, thoroughly read each answer, and categorized each answer into themes (i.e., descriptions that were based on keywords or ideas). Supporting internal consistency reliability, the 45-item REMS produced a coefficient alpha of 0.93 ($M = 1.67$, $SD = 0.54$) for the entire measure when administered to a diverse sample that included African Americans (Nadal, 2011). Across all studies, the REMS-45 measure has an overall Cronbach's alpha of .91 (Nadal, 2011). In the current study, the Cronbach's alpha for the full scale was .94. However, it is important to note that question 15 from the REMS ("My

opinion was overlooked in a group discussion because of my race”) was missing due to researcher error when conducting the present study. Excluding this item did not have a significant influence on reliability or validity for this measure.

Coping strategies indicator. The Coping Strategies Indicator (CSI; Amirkhan, 1990; Appendix F) is a self-report instrument used to examine how individuals may cope with stress (e.g., microaggressions). The CSI is empirically derived and includes 33 items, with three scales of 11 items each. The first scale assesses Problem Solving, an instrumental approach involving the planning and implementation of steps to remediate the problem (e.g., “Brainstormed all possible solutions before deciding what to do”). The Seeking Social Support scale measures attempts at human contact, not necessarily for help in resolving the problem, but simply for the comfort such contact provides (e.g., “Confided your fears and worries to a friend or relative”). The last scale, Avoidance, reflects tendencies to escape the problem, both by means of physical and psychological withdrawal (e.g., “Avoided being with people...” and “Buried yourself in a hobby...”). These scales tap the “common denominators of coping”, strategies common to a wide diversity of people dealing with a broad range of problems. Also, although they may seem mutually exclusive, the scales are in fact orthogonal-an asset in correlational analyses, for multicollinearity concerns are avoided (Amirkhan, 1990). These scales also directly align with the most common ways African American college students cope with racial discrimination. Furthermore, despite its brevity, the CSI is psychometrically superior to other coping questionnaires.

For statistical analysis, the subscales of this instrument were utilized for various reasons. Firstly, it was necessary to explore subscale scores due to the fact that this study was specifically interested in how African American doctoral students cope with race-related stress. Secondly, the subscales of the CSI have been found to be orthogonal (Amirkhan, 1990). Additionally, the interpretation of scores is aided by scale norms, which eliminate the need for median cutoff points in applications using smaller or more homogeneous samples.

Additionally, convergent validity has been demonstrated, both in terms of convergence with existing measures of coping, personality, and pathology (e.g., The Rotter Locus of Control Scale; Rotter, 1966) and in terms of non-covariation with social desirability indices (e.g., Marlowe Social Desirability Scale; Crowne & Marlowe, 1960). Criterion validity is evidenced by the CSI's ability to predict actual coping responses made in both laboratory simulations and real-world settings (Amirkhan, 1994).

Ultimately, the CSI is very practical to examine how individuals may be adjusting and coping with stress. Additionally, results can provide a meaningful representation of an individual's coping responses, which can shed light to the strengths one may hold. This instrument has also been used to measure coping with race-related stress among ethnic minorities and African Americans (Joseph & Kuo, 2009; Utsey et al., 2000), as well as college students (Andover, Pepper, & Gibb, 2007). Previous research has shown that the scales of this measure are internally consistent, with alphas ranging from .84 to .93 (Amirkhan, 1990). In the current study, the Cronbach's alpha for the full scale was .91, and Cronbach's alpha on the subscales ranged from .87 to .91.

Scale of psychological well-being. The Ryff Scales of Psychological Well-Being (SPWB; Ryff, 1995; Appendix G) was used to measure multiple facets of psychological well-being. This theoretically grounded instrument is based on Ryff's conceptualization of eudaimonic well-being and consists of six dimensions: Positive Relationships with Others (PR); Autonomy (AU); Environmental Mastery (EM); Personal Growth (PG); Purpose of Life (PL); and Self-Acceptance (SA). Briefly, Self-Acceptance is accepting one's self and one's past life and having a positive attitude and acceptance of these components ("When I look at the story of my life, I am pleased with how things have turned out"). Positive Relations with Others is having important and trusting relationships with others ("Maintaining close relationships has been difficult and frustrating for me"). Autonomy encompasses "self-determination, independence and the regulation of behavior from within" (Ryff, 1989, p 1071; "I tend to be influenced by people with strong opinions"). Environmental Mastery refers to the characteristic in which the individuals feel they have control over daily life situations and responsibilities (e.g., taking care of financial decisions, balancing the demands of their occupation/job; "The demands of everyday life often get me down"). Purpose in Life is the feeling that there is purpose and meaning in life ("Some people wander aimlessly through life, but I am not one of them"). Personal Growth is operationalized as the characteristic in which the individuals want to develop their potential, expand, and continue to develop as a person ("I think it is important to have new experiences that challenge how you think about yourself and the world") (Iwamoto & Liu, 2010).

Using theory-guided dimensions of well-being definitions as a guide, researchers created 80 items for each scale (40 for each pole of the scale's definition). Items were

then eliminated if they were ambiguous; redundant; lacked fit with their dimension definition, distinctiveness from other dimensions, or the ability to produce variable responses; or did not incorporate all facets of the scale's definition (Ryff, 1989). From this elimination process, 32 items for each scale (16 for each pole of the scale's definition) were retained. At the final stage, each scale was comprised of 20 items (roughly 10 for each pole of the scale's definition).

Currently there are three versions of the Ryff Scales of Psychological Well-Being. The longest consists of 84 items (14 for each scale) and is used by Ryff and her colleagues at the Institute on Aging at the University of Wisconsin–Madison. The mid-length version consists of 54 items (nine per scale) and is currently being used by the Wisconsin Longitudinal Study. The shortest version, developed for national telephone surveys, consists of 18 items (three per scale).

In the present study, the three-item per subscale version, 18 items in total was used. For the statistical analysis, the total scale score was utilized for several reasons. First, studies have provided support for reliability and validity of the full scale of this instrument (e.g., Iwamoto & Liu, 2010). Second, this study was primarily interested in examining psychological well-being as a whole, and was less concerned with the specific dimensions of well-being.

The three-item version is based on the parent scale that consists of a 20-item per subscale version, and acceptable internal consistency estimates for the three-item per subscale version has been demonstrated (Ryff & Keyes, 1995). Each subscale's reliability estimates have ranged from .69–.87. The three-item per subscale measure has been

empirically supported via confirmatory factor analysis. Furthermore, Ryff and Keyes (1995) found that the six-factor (three-item per factor) model fit the data well.

Participants rated each item on the SPWB using a six-point Likert scale (1 = strongly disagree to 6 = strongly agree). Scores on each subscale ranged from 9 to 54; lower scores indicated lower well-being or less satisfaction in the specific construct; higher scores indicated higher self-actualization and acceptance. The total Scale of Psychological WellBeing (SPWB) was used. Additionally, across all studies among an ethnically diverse samples, the measure showed to have adequate reliability estimates using the 18-item version (Total $\alpha = .77$) (Iwamoto & Liu, 2010). In the current study, the Cronbach's alpha for the full scale was .79.

Sense of belonging scales. The Sense of Belonging Scales (SOBS; Hoffman et al., 2002; Appendix H) provides a multidimensional investigation of sense of belonging. Examining peer, faculty, and classroom interaction can be especially useful to better understand the experiences of this population.

The 26-item instrument was used to measure students' sense of belonging in the college environment. Thematically, these items encompass peer-to-peer relationships, student-to-faculty relationships, and classroom-specific interactions. The four subscales include: perceived peer support ("I have met with classmates outside of class to study for an exam"), perceived classroom comfort ("I felt comfortable asking a question in class"), perceived isolation ("I rarely talked to other students in my class"), and perceived faculty support ("I felt comfortable talking about a problem with faculty"). Respondents rated

these items using a scale that ranged from one to five, with one indicating completely “Strongly Disagree” and five indicating “Strongly Agree”.

For data analysis, the full scale of this measure was used for multiple reasons. First, this study was primarily interested in examining if sense of belonging as a whole predicts a significant change in psychological well-being. Additionally, the sample size would have been increased to achieve adequate power.

This measure was normed on a sample that consisted of 205 freshmen students attending an East Coast university, who were enrolled in either a freshman seminar or a learning community seminar. Although most participants for the normed sample were female (71%) and White (85%), this instrument has been validated with diverse college samples (Tovar & Simon, 2010).

In 2010, Tovar and Simon administered the SOBS to a diverse group of college participants. Overall, the initial sample included 623 (68.0%) females and 293 (32.0%) males; 326 (35.6%) were White, 259 (28.3%) Latino/a, 122 (13.3%) Asian/Pacific Islander, 69 (7.5%) other, 51 (5.6%) multiracial, 42 (4.6%) Black/African American, and 6 (0.7%) American Indian; 41 (4.5%) participants declined to state their race/ethnicity. Participants ranged in age from 18 to 83 years with a mean age of 24.3 years ($SD = 7.59$). With respect to class standing at the university, 129 (14.10%) were freshmen, 160 (17.50%) sophomore, 308 (33.60%) juniors, and 319 (34.80%) seniors (Tovar & Simon, 2010).

In regards to the development of the SOBS, this instrument was derived using principal component analysis (PCA) following an extended development phase. Hoffman et al (2002–2003) reported conducting two independent PCAs. The first was on 50 items

about peer-to-peer relationships, which yielded five interpretable components, and the second on 35 items characterizing student-to-faculty relationships, which yielded four components. The authors then combined the resulting components, consisting of 26 items total, and proceeded to conduct a final PCA. Based on this analysis, the 26 items (three negatively stated) loaded into five components (scales), accounting for 63.3% of the variance (Tovar & Simon, 2010).

According to scholars, the Cronbach's alpha coefficients for the full scale and subscales of the SOBS were as follows: Total Sense of Belonging scale $\alpha = .90$, perceived faculty understanding/comfort scale $\alpha = .89$, perceived peer support scale $\alpha = .84$, and perceived classroom comfort $\alpha = .93$ (Tovar & Simon, 2010). In the current study, the Cronbach's alpha for the full scale was .84.

Procedure

African American doctoral students who volunteered for this study completed an online survey that took 25-35 minutes to complete. All measures were compiled as one survey using Qualtrics, a widely used survey software program. A recruitment email was sent out explaining the purpose, eligibility, and time commitment of the survey. Additionally, an online link was provided. This survey was composed of a demographics questionnaire, the REMS, SPWB, CSI, and SOBI. Students were recruited through accessible list serves with the help of the Black Graduate Conference in Psychology (BGCP), American Psychological Association (APA) Division 45, the Association of Black Psychologists (ABPsi), and the American Psychological Association of Graduate

Students (APAGS) Committee for the Advancement of Racial Ethnic Diversity (CARED). Additionally, participants were recruited from academic fellowship programs, associations,) and organizations supporting or networking African American psychology doctoral students (e.g., Ford Foundation Fellowship Program and the APA Minority Fellowship Program). Training directors and professors within post-secondary institutions were utilized to disseminate this survey to eligible students. Social networks were also utilized (e.g., Facebook, LinkedIn, Twitter, and word of mouth) to spread information about this study. Specifically, social media direct message and Facebook group announcement postings were especially useful for participant recruitment.

Data Analysis

This is a quantitative study that utilized SPSS Statistics 24 software to run data analysis. Several steps were involved in the analysis of this study. For the purposes of this section, the steps of data analysis are broadly defined. In Chapter 4, data analysis procedures and results are more specifically discussed.

Firstly, a *G*-power analysis was conducted to determine the appropriate sample size. Following data collection, descriptive statistics were conducted to calculate the percentage of male and female participants and number of students per psychology specialty (e.g., clinical, counseling, etc.). A correlational analysis was then completed to examine the relationship between racial microaggressions and psychological wellbeing. The purpose of this analysis was to determine whether there was an overall relationship prior to the investigation.

A hierarchical multiple regression analysis was conducted to determine the influence of predictors (racial microaggressions, social support, problem solving, avoidance, and sense of belonging) on psychological well-being. For this analysis, microaggressions were entered in model one, followed by coping strategies (problem solving, social support, and avoidance) in model two. Model three consisted of adding sense of belonging, and model four included two interaction terms (microaggressions x problem solving and microaggressions x avoidance). Sense of belonging was placed after coping strategies because this study was interested in observing if this variable would show an independent contribution. The means, standard deviations, reliability coefficients, and correlations for all variables were also examined.

Hypotheses

It was anticipated that the relationship between racial microaggressions and psychological well-being are negatively correlated. Additionally, sense of belonging and coping were predicted to significantly moderate the impact of microaggressions on psychological well-being.

CHAPTER 4

RESULTS

This study examined the following research questions: 1) What is the frequency and most/least common types of racial microaggressions that African American doctoral students in psychology experience? 2) What is the impact of microaggressions on psychological well-being for African American doctoral students in psychology? 3) Do coping strategies and sense of belonging buffer the negative effects of microaggressions on psychological well-being for African American doctoral students in psychology? This chapter will answer these questions and provide information about the results of the analyses conducted for this study.

First, data regarding the sample size and demographic data are reviewed. Next, descriptive data of the instruments administered are discussed. Then, correlation results are explored. Basic assumptions of multiple linear regression are then reviewed, followed by the examination of hierarchical multiple regression analyses results. The last section discusses a summary of the results.

Sample Size

After conducting an a priori *G*-power analysis (effect size $f^2=.176$, power=.95, number of tested predictors=5), the minimum sample size for this study was calculated to be 119 participants. The effect size f^2 was calculated by using the formula $r^2/1-r^2$ ($r^2 = .15$).

The five tested predictors for this study included: 1) racial microaggressions, 2) problem focused coping, 3) social support, 4) avoidance, and 5) sense of belonging.

These predictors were derived from scores from the following instruments: the Racial and Ethnic Microaggressions Scale (REMS), the Coping Strategies Indicator (CSI; which encompasses Problem Focused Coping, Social Support & Avoidance subscales), the Scale of Psychological Well-Being (SPWB), and the Sense of Belonging Scales (SOBS).

A total of 382 participants started the online survey. Incomplete surveys ($n=127$) were not included in data analysis. For those who completed the survey, there was no missing data due to the fact that participants were not allowed to skip questions. All participants who completed the survey fulfilled the required criteria eligibility; thus the final sample included 155 total participants.

Descriptive Statistical Analysis

Prior to running descriptive statistics for the measures, the histogram and scatterplots were first examined for outliers. No significant outliers were discovered. Following the computation of total scale and subscale variables, fixed responding was examined by exploring the standard deviations of each response to see if variability between responses occurred for the measures used in this study. Variability between responses was discovered, which indicated that there was no fixed responding for all scales and subscales.

Next, descriptive statistics were calculated for the total scales/subscales of all variables. Table 4.6 provides information on means, standard deviations, and Cronbach

alphas for each of these. Additionally, differences between males and females were compared for all tested variables (total scales/subscales). Due to the fact that there were no significant differences found based on gender, the sample was combined for subsequent analyses.

Table 4.6

Number of Items, Possible Score Range, Participant Range of Scores, Means, Standard Deviations, and Cronbach Alphas of Instrument Scales.

| Total Scales/ Subscales | Number of Items | Possible Score Range | Participant Score Range | <i>M</i> | <i>SD</i> | <i>a</i> |
|----------------------------------------------------------------------------------------|----------------------------|-------------------------------------|------------------------------------|-----------------|------------------|-----------------|
| Racial and Ethnic Microaggressions Scale (REMS; Nadal, 2010) - total scale | 44 | 0-220 | 51-193 | 86.87 | 23.09 | .74 |
| Coping Strategies Indicator (CSI; Amirkhan, 1990)- subscales | | | | | | |
| 1) Problem Solving | 11 | 11-33 | 11-33 | 24.59 | 5.73 | .91 |
| 2) Seeking Social Support | 11 | 11-33 | 11-33 | 24.99 | 5.24 | .89 |
| 3) Avoidance | 11 | 11-33 | 11-32 | 20.61 | 5.58 | .87 |
| Sense of Belonging Scales (SOBS; Hoffman et al., 2002)-total scale | 26 | 26-130 | 58-123 | 95.48 | 13.01 | .84 |
| Scale of Psychological Well- Being (SPWB; Ryff, 1995)-total scale | 18 | 18-108 | 59-106 | 87.81 | 9.6 | .79 |

Microaggressions. This section will address the first research question: What is the frequency and most/least common types of racial microaggressions that African American doctoral students in psychology experience? Racial microaggressions were measured using the Racial and Ethnic Microaggressions Scale (REMS; Nadal 2010). For the total scale of the REMS participant scores ranged from 51-193. The average score/frequency of microaggressions reported in the last six months was 86.87 ($SD=23.09$).

The most commonly reported racial microaggressions within the past six months were as follows: “I observed people of my race portrayed positively on television” (reversed scored) (14%, $n=21$); “Someone acted surprised at my scholastic or professional success because of my race” (11%, $n=17$); “I observed that people of my race were high-level leaders at my institution” (reversed scored) (11%, $n=17$); “I read popular books or magazines in which a majority of contributions featured people from my racial group” (reversed scored) (11%, $n=17$); “I observed people of my race in prominent positions in my program” (reversed scored) (10%, $n=15$); “A classmate or instructor treated me differently than White classmates” (8%, $n=13$); “Someone assumed that I would not be intelligent because of my race” (8%, $n=13$).

The least commonly endorsed microaggressions, as clarified by those who indicated that they did not experience the event at all, included: “Someone did not believe me when I told them I was born in the US” (91%, $n=141$); “Someone assumed that I speak similar languages to other people in my race” (90%, $n=139$); “Someone asked me to teach them words in my “native language” (89%, $n=138$); “Someone wanted to date

me only because of my race” (87%, $n=134$); and “Someone assumed that I spoke a language other than English” (87%, $n=134$).

Table 4.7

Number and Percentage of Participants Endorsing REMS Items

| Subscale/Item | 0= I did not experience this event in my program | 1= I experienced this event 1–3 times in the past six months in my program | 2= I experienced this event 3–6 times in the past six months in my program | 3= I experienced this event 6–9 times in the past six months in my program | 4= I experienced this event 10 or more times in my program |
|------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------|
| <i>Assumptions of Inferiority</i> | | | | | |
| 32) Someone assumed that I would have a lower education because of my race | 73 (47.1%) | 46 (29.7%) | 22 (14.2%) | 8 (5.20%) | 6 (3.90%) |
| 38) Someone assumed that I was poor because of my race. | 107 (69.0%) | 30 (19.4%) | 13 (8.40%) | 3 (1.90%) | 2 (1.30%) |
| 21) Someone assumed that I would not be educated because of my race. | 84 (54.2%) | 36 (23.2%) | 22 (14.2%) | 8 (5.20%) | 5 (3.20%) |
| 17) Someone acted surprised at my scholastic or professional success because of my race. | 55 (35.5%) | 57 (36.8%) | 16 (10.3%) | 10 (6.50%) | 17 (11.0%) |
| 9) Someone assumed that I would not be intelligent because of my race. | 71 (45.8%) | 38 (24.5%) | 24 (15.5%) | 9 (5.8%) | 13 (8.4%) |
| 36) Someone assumed that I held a lower paying job because of my race. | 130 (83.9%) | 13 (8.40%) | 9 (5.80%) | 2 (1.30%) | 1 (0.60%) |

| | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------|-------------|------------|------------|------------|------------|
| 5) Someone assumed that I grew up in a particular neighborhood because of my race. | 91 (58.7%) | 40 (25.8%) | 15 (9.7%) | 4 (2.6%) | 5 (3.2%) |
| 22) Someone told me that I was “articulate” after she/he assumed I wouldn’t be. | 89 (57.4%) | 31 (20.0%) | 17 (11.0%) | 9 (5.80%) | 9 (5.80%) |
| Second-Class Citizen and Assumptions of Criminality | | | | | |
| 6) Someone avoided walking near me on the street because of my race. | 113 (72.9%) | 22 (14.2)% | 11 (7.1%) | 4 (2.6%) | 5 (3.2%) |
| 31) Someone clenched her/his purse or wallet upon seeing me because of my race. | 115 (74.2%) | 29 (18.7%) | 5 (3.20%) | 2 (1.30%) | 4 (2.60%) |
| 8) Someone avoided sitting next to me in a public space (e.g., restaurants, movie theaters, subways, buses) because of my race. | 109 (70.3%) | 30 (19.4%) | 7 (4.5%) | 3 (1.9%) | 6 (3.90%) |
| 40) Someone avoided eye contact with me because of my race. | 86 (55.5%) | 45 (29.0%) | 8 (5.2%) | 6 (3.90%) | 10 (6.50%) |
| 2) Someone’s body language showed they were scared of me, because of my race. | 83 (53.5%) | 40 (25.8%) | 17 (11.0%) | 12 (7.70%) | 3 (1.90%) |
| 34) Someone assumed that I would physically hurt them because of my race. | 130 (83.9%) | 19 (12.3%) | 1 (0.60%) | 4 (2.60%) | 1 (0.60%) |
| 11) I received substandard service in stores compared to customers of other racial groups. | 100 (64.5%) | 27 (17.4%) | 12 (7.70%) | 6 (3.90%) | 10 (6.50%) |
| Microinvalidations | | | | | |
| 27) Someone told me that they “don’t see color.” | 70 (45.2%) | 58 (37.4%) | 11 (7.10%) | 7 (4.50%) | 9 (5.80%) |
| 30) Someone told me that they do not see race. | 80 (51.6%) | 48 (31.0%) | 11 (7.10%) | 7 (4.50%) | 9 (5.80%) |

| | | | | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-------------|------------|------------|-----------|-----------|
| 39) Someone told me that people should not think about race anymore. | 92 (59.4%) | 42 (27.1%) | 8 (5.20%) | 6 (3.90%) | 7 (4.50%) |
| 7) Someone told me that she or he was color-blind. | 75 (48.4%) | 46 (29.7%) | 18 (11.6%) | 4 (2.6%) | 12 (7.7%) |
| 26) I was told that people of color do not experience racism anymore. | 97 (62.6%) | 32 (20.6%) | 16 (10.3%) | 3 (1.90%) | 7 (4.50%) |
| 33) Someone of a different racial group has stated that there is no difference between the two of us. | 77 (49.7%) | 46 (29.7%) | 21 (13.5%) | 5 (3.20%) | 6 (3.90%) |
| 4) I was told that I should not complain about race. | 107 (69.0%) | 33 (21.3%) | 8 (5.20%) | 3 (1.9%) | 4 (2.6%) |
| 14) I was told that people of all racial groups experience the same obstacles. | 78 (50.3%) | 48 (31.0%) | 20 (12.9%) | 1 (0.60%) | 8 (5.20%) |
| 10) I was told that people of all racial groups experience the same obstacles. 10 I was told that I complain about race too much. | 114 (73.5%) | 26 (16.8%) | 5 (3.20%) | 4 (2.6%) | 6 (3.90%) |
| <hr/> Exoticization/Assumptions of Similarity <hr/> | | | | | |
| 3) Someone assumed that I spoke a language other than English. | 134 (86.5%) | 16 (10.3%) | 1 (0.60%) | 0 (0.00%) | 4 (2.60%) |
| 29) Someone asked me to teach them words in my "native language." | 138 (89.0%) | 11 (7.10%) | 1 (0.60%) | 2 (1.30%) | 3 (1.90%) |
| 45) Someone assumed that I speak similar languages to other people in my race. | 139 (89.7%) | 13 (8.40%) | 1 (0.60%) | 1 (0.60%) | 1 (0.60%) |
| 35) Someone assumed that I ate foods associated with my race/culture every day. | 107 (69.0%) | 32 (20.6%) | 8 (5.20%) | 6 (3.90%) | 2 (1.30%) |
| 42) Someone told me that all people in my racial group look alike. | 117 (75.5%) | 28 (18.1%) | 6 (3.90%) | 1 (0.60%) | 3 (1.90%) |

| | | | | | |
|------------------------------------------------------------------------------------------------------------------|-------------|------------|------------|------------|------------|
| 23) Someone told me that all people in my racial group are all the same. | 120 (77.4%) | 23 (14.8%) | 6 (3.90%) | 3 (1.90%) | 3 (1.90%) |
| 13) Someone wanted to date me only because of my race. | 134 (86.5%) | 15 (9.70%) | 4 (2.60%) | 1 (0.60%) | 1 (0.60%) |
| 20) Someone did not believe me when I told them I was born in the U.S. | 141 (91.0%) | 8 (5.20%) | 6 (3.90%) | 0 (0.00%) | 0 (0.00%) |
| 43) Someone objectified one of my physical features because of my race. | 77 (49.7%) | 46 (29.7%) | 16 (10.3%) | 7 (4.50%) | 9 (5.80%) |
| <hr/> Environmental Microaggressions <hr/> | | | | | |
| 37) I observed people of my race portrayed positively in movies. | 27 (17.4%) | 72 (46.5%) | 38 (24.5%) | 11 (7.10%) | 7 (4.50%) |
| 24) I observed people of my race portrayed positively in magazines. | 45 (29.0%) | 56 (36.1%) | 38 (24.5%) | 5 (3.20%) | 11 (7.10%) |
| 19) I observed people of my race portrayed positively on television. | 23 (14.8%) | 53 (34.2%) | 45 (29.0%) | 13 (8.40%) | 21 (13.5%) |
| 28) I read popular books or magazines in which a majority of contributions featured people from my racial group. | 59 (38.1%) | 45 (29.0%) | 24 (15.5%) | 10 (6.50%) | 17 (11.0%) |
| 18) I observed that people of my race were the CEOs of major corporations. | 63 (40.6%) | 58 (37.4%) | 11 (7.10%) | 6 (3.90%) | 17 (11.0%) |
| 41) I observed that someone of my race is a government official in my state. | 82 (52.9%) | 40 (25.8%) | 20 (12.9%) | 7 (4.50%) | 6 (3.90%) |
| 12) I observed people of my race in prominent positions at my workplace or school. | 65 (41.9%) | 56 (36.1%) | 11 (7.10%) | 8 (5.20%) | 15 (9.70%) |
| <hr/> Workplace and School Microaggressions <hr/> | | | | | |

| | | | | | |
|------------------------------------------------------------------------------------------|------------|------------|------------|-----------|------------|
| 25) An employer or co-worker was unfriendly or unwelcoming toward me because of my race. | 99 (63.9%) | 40 (25.8%) | 11 (7.10%) | 1 (0.60%) | 4 (2.60%) |
| 1) I was ignored at school or at work because of my race. | 97 (62.6%) | 35 (22.6%) | 11 (7.10%) | 6 (3.90%) | 6 (3.90%) |
| 16) Someone assumed that my work would be inferior to people of other racial groups. | 91 (58.7%) | 40 (25.8%) | 12 (7.70%) | 6 (3.90%) | 6 (3.90%) |
| 44) An employer or co-worker treated me differently than White co-workers. | 72 (46.5%) | 40 (25.8%) | 25 (16.1%) | 5 (3.20%) | 13 (8.40%) |

Note. Item 15 (My opinion was overlooked in a group discussion because of my race) was not included in this modified measure

Coping strategies. Coping strategies were measured using the Coping Strategies Indicator (CSI; Amirkhan, 1990). Participant scores on the Problem Solving subscale ranged from 11-33. The average score was 24.59 ($SD=5.73$). For this scale, participants reported most frequently using the following coping strategy “Weighed up your options carefully” (63%, $n=97$).

For the second scale, Seeking Social Support, participant scores ranged from 11-33. The average score was 24.99 ($SD=5.24$). For this scale, participants reported most frequently using the following coping strategy: “Described your feelings to a friend” (60%, $n=92$).

Participant scores on the Avoidance subscale ranged from 11-32. The average score was 20.61 ($SD=5.58$) For this scale, participants reported most frequently using the

following coping strategy: “Did all you could to keep others from seeing how bad things really were” (33%, $n=51$).

Psychological well-being. Psychological well-being was measured using the Scale of Psychological Well-Being (SPWB; Ryff, 1995). Results for the SPWB total scale demonstrate that participant scores ranged from 59-106, with an average of 87.81 ($SD=9.6$).

Frequently endorsed statements included: “For me, life has been a continuous process of learning, changing and growth” ($n=108$, 70%); “I think it is important to have new experiences that challenge how you think about yourself and the world” ($n=107$, 69%); “People would describe me as a giving person, willing to share my time with others” ($n=66$, 42%); “Some people wander aimlessly through life, but I am not one of them” ($n=64$, 41%); “I like most aspects of my personality” ($n=58$, 37%); and “I have confidence in my opinions, even if they are contrary to the general consensus” ($n=54$, 35%).

Participants most frequently disagreed with the following statements: “I sometimes feel as if I’ve done all there is to do in life” ($n=114$, 74%); “I gave up trying to make a big improvements or changes in my life a long time ago” ($n=103$, 66%); “In many ways, I feel disappointed about my achievements in life” ($n=88$, 57%); “I live life one day at a time and don’t really think about the future” ($n=73$, 47%); and “I have not experienced many warm and trusting relationships with others” ($n=67$, 43%).

Sense of belonging. Sense of belonging was measured using the Sense of Belonging Scales (SOBS; Hoffman et al., 2002). For the total scale of the SOBS, participant scores ranged from 58-123, with an average of 95.5 (SD=13.0).

When participants were asked about sense of belonging in their program, the most commonly endorsed statements were: “I could call another student from class if I had a question about an assignment” ($n=83$, 54%); “If I miss class, I know students who I could get the notes from” ($n=79$, 51%); and “I have met with classmates outside of class to study for an exam” ($n=67$, 43%).

Participants most frequently disagreed with the following statements: “I know very few people in my classes” ($n=55$, 35%); “I rarely talk to other students in my classes” ($n=41$, 26%); “I feel comfortable asking a faculty member for help with a personal problem” ($n=37$, 24%); “It is difficult to meet other students in class” ($n=36$, 23%); “No one in my classes knows anything personal about me” ($n=30$, 19%).

Correlation Analyses

Correlations between all the study variables were first calculated (See Table 4.8 and 4.9). Results suggested that there was a statistically significant correlation between psychological wellbeing and problem solving ($r=.31$, $p<.01$), psychological wellbeing and avoidance ($r= -.29$, $p<.01$), as well as microaggressions and avoidance ($r= .41$, $p<.01$).

Results also indicated that there was no significant correlation ($r=-.11$, $p=.19$) between racial microaggressions (independent variable) and psychological well-being

(dependent variable). Researchers suggest that one of the most common errors in interpreting the correlation coefficient is failure to consider that there may be a third variable related to both of the variables being investigated, which is responsible for the apparent correlation (Bewick, Cheek, & Ball, 2003). Therefore, despite this non-significant correlation, it was decided to still investigate the impact of microaggressions on psychological well-being (research question two).

Table 4.8

Correlations Among Variables

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---------------------------|--------|-------|-------|-------|------|---|
| 1 Psychological Wellbeing | - | | | | | |
| 2 Microaggressions | -.11 | - | | | | |
| 3 Social Support | .19* | .11 | - | | | |
| 4 Problem Solving | .31** | .22** | .50** | - | | |
| 5 Avoidance | -.29** | .45** | .11 | .29** | - | |
| 6 Sense of Belonging | .20* | -.27 | .13 | .03 | -.02 | - |

Note. N=155. * $p < .05$; ** $p < .01$

Table 4.9

Correlations among REMS Subscales and SPWB Total Scale

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-------------------------------------------------------|------|-------|-------|-------|------|------|---|
| 1 Psychological Well-being | - | | | | | | |
| 2 Environmental Microaggressions | .08 | - | | | | | |
| 3 Microinvalidations | -.13 | .03 | - | | | | |
| 4 Assumptions of Inferiority | -.06 | .00 | .62** | - | | | |
| 5 Second-Class Citizen and Assumptions of Criminality | -.03 | .05 | .67** | .79** | - | | |
| 6 Exoticization/Assumptions of Similarity | -.11 | .184* | .68** | .66** | .62* | - | |
| 7 Workplace and School Microaggressions | -.01 | .04 | .63** | .64** | .72* | .61* | - |

Note. * Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis

Next, a hierarchical multiple regression analysis was conducted to determine the influence of predictors (racial microaggressions, social support, problem solving, avoidance, and sense of belonging) on psychological well-being. Specifically, the first regression was conducted to answer research question two (What is the impact of microaggressions on psychological well-being for African American doctoral students in psychology?). For this analysis, microaggressions were entered in step one, followed by coping strategies (problem solving, social support, and avoidance) in step two. Step three consisted of adding sense of belonging, and step four included two interaction terms (microaggressions x problem solving and microaggressions x avoidance). See Table 4.8 for a summary of hierarchical multiple regression analyses and Table 4.9 for step summaries.

Prior to conducting the analyses, five basic assumptions related to multiple regression were evaluated: 1) the relationship between the independent variables and the dependent variable is linear; 2) there is no multicollinearity within the data; 3) errors are independent of one another; 4) errors are normally distributed, and 5) the values of the residuals are normally distributed (Williams, Grajales, & Kurkiewicz, 2013).

First, the assumption regarding linearity was found to be violated based on examining results from the scatter plot. This was observed due to the fact that the scatter plot did not follow a linear pattern.

Second, multicollinearity was examined. It is important to examine multicollinearity particularly for studies with small sample sizes because it becomes more likely that a Type I error will occur (Baguley, 2012). To determine whether multicollinearity exists between the independent variables of a regression model, a common practice is to examine the correlations between the variables for coefficients greater than or equal to .80 (Wells, 2008). Results for this study showed none of the correlation values of the variables exceeded .80, indicating that the assumption of multicollinearity had not been violated.

The Durbin-Watson statistic was used to test the third assumption that the residuals are independent (or uncorrelated). The Durbin-Watson statistic showed that this assumption had been met, as the obtained value was close to 2 (Durbin-Watson = 1.98).

To test that errors are normally distributed, the fourth assumption, a scatterplot of standardized residuals vs. standardized predicted values was produced. Results showed that the points in the scatterplot were randomly dispersed, which confirms that this assumption was met.

Last, normality was examined by reviewing the distribution of residuals on the histogram and P-P plot. Results showed that normality was violated. The histogram suggested that the distribution responses on the REMS were negatively skewed and not normally distributed. Essentially, many participants reported experiencing a low frequency of racial microaggressions, which skewed the histogram in a negative direction. Following the testing of assumptions, a hierarchical multiple regression analysis was conducted to answer the remaining questions of this study: a) What is the impact of microaggressions on psychological well-being for African American doctoral

students in psychology? b) Do coping strategies and sense of belonging buffer the negative effects of microaggressions on psychological well-being for African American doctoral students in psychology?

First, to evaluate if racial microaggressions predict psychological well-being, the total microaggressions score was entered into step one, with the dependent variable being the total psychological well-being score. Results for step one (Table 5.0) showed that microaggressions did not significantly predict psychological well-being due to the p -value being greater than .05 [$F(1,152)=1.72, p=.19$].

In the second step, coping predictors were entered into the regression (Table 5.0). Results indicate that after microaggressions was accounted for, 27% ($R^2=.27$) of the variance of psychological well-being was explained by coping strategies (problem solving, social support, and avoidance). This step included the direct effects of the coping strategies on psychological well-being. Problem solving was found to significantly predict psychological well-being [$F(3,149)=17.1, p<.001$] with a large effect size. This suggests that more problem solving strategies utilized by students contributed to higher well-being. Social support did not significantly predict psychological well-being [$F(3,149)=7.1, p>.05$]. Avoidance significantly predicted psychological well-being [$F(3,149)=17.1, p<.001$] with a large effect size, indicating that avoidance strategies had a negative impact on psychological well-being.

In the third step, sense of belonging was included to see if it added anything to the model. Results of step three, which includes sense of belonging, indicated that 28% ($R^2=.28$) of the variance of psychological well-being can be explained by the sense of belonging. Step three includes the direct effect of sense of belonging on psychological

well-being. Sense of belonging did not significantly predict psychological well-being [$F(1, 148) = 2.7, p > .05$].

To answer if coping strategies and sense of belonging buffer the negative effects of microaggressions on psychological well-being (research question three), a multiple regression with interaction terms were tested (step four). First, variables included in step three (problem solving, social support, avoidance, sense of belonging) were centered by subtracting the mean from all values, so that the mean was zero. Second, multiplying each centered variable by racial microaggressions created an interaction term (e.g., centered problem solving x centered racial microaggressions). The interaction terms were then entered as the final steps in the regression model (see Table 5.0).

Results indicated that no interaction terms were significant predictors of psychological well-being. Specifically, the interaction between problem solving and microaggressions on psychological well-being was not significant [$F(4, 144) = .37, p > .05$]. Additionally, the interaction between social support and microaggressions on psychological well-being was not significant [$F(4, 144) = .37, p > .05$]. The interaction between avoidance and microaggressions on psychological well-being was also not significant [$F(4, 144) = .37, p > .05$]. Lastly, the interaction between sense of belonging and microaggressions on psychological well-being was not significant [$F(4, 144) = .37, p > .05$]. Overall, including the interaction terms did not add anything to the model.

Table 5.0*Summary of Hierarchical Multiple Regression Analysis*

| Variable | <i>B</i> | <i>SE</i> <i>B</i> | β | <i>t</i> | Sig. | <i>R</i> | <i>R</i> ² | Δ <i>R</i> ² | <i>SEE</i> | <i>R</i> ² Δ | Δ <i>F</i> | <i>df</i> | <i>df</i> ₂ | Sig. <i>F</i> Δ |
|------------------------------------------|----------|-----------------------|---------|----------|------|------------------|-----------------------|-----------------------------------|------------|-----------------------------------|-------------------|-----------|------------------------|---------------------------|
| Step 1 | | | | | | .11 _a | .01 | .00 | 9.36 | .01 | 1.72 | 1 | 152 | .19 |
| Microaggressions | -.04 | .03 | -.11 | -1.31 | .19 | | | | | | | | | |
| Step 2 | | | | | | .51 _b | .27 | .25 | 8.16 | .25 | 17.1 | 3 | 149 | .00 |
| Microaggressions | .00 | .03 | -.01 | -.08 | .94 | | | | | | | | | |
| Problem Solving | .69 | .14 | .42 | 5.01 | .00 | | | | | | | | | |
| Social Support | .06 | .15 | .03 | .41 | .69 | | | | | | | | | |
| Avoidance | -.72 | .14 | -.43 | -5.29 | .00 | | | | | | | | | |
| Step 3 | | | | | | .53 _c | .28 | .25 | 8.11 | .01 | 2.68 | 1 | 148 | .10 |
| Microaggressions | .10 | .03 | .03 | .32 | .75 | | | | | | | | | |
| Problem Solving | .69 | .14 | .42 | 4.98 | .00 | | | | | | | | | |
| Social Support | .03 | .15 | .02 | .19 | .85 | | | | | | | | | |
| Avoidance | -.70 | .14 | -.42 | -5.16 | .00 | | | | | | | | | |
| Sense of Belonging | .09 | .05 | .12 | 1.63 | .10 | | | | | | | | | |
| Step 4 | | | | | | .53 _d | .29 | .24 | 8.18 | .00 | .37 | 4 | 144 | .83 |
| Microaggressions | .00 | .04 | .00 | .04 | .96 | | | | | | | | | |
| Problem Solving | .69 | .14 | .42 | 4.90 | .00 | | | | | | | | | |
| Social Support | .04 | .15 | .02 | .28 | .77 | | | | | | | | | |
| Avoidance | -.69 | .14 | -.41 | -4.96 | .00 | | | | | | | | | |
| Sense of Belonging | .08 | .06 | .11 | 1.46 | .15 | | | | | | | | | |
| Microaggressions x Problem Solving | .00 | .00 | .03 | .39 | .69 | | | | | | | | | |
| Microaggressions x Social Support | .00 | .00 | .02 | 1.04 | .30 | | | | | | | | | |
| Microaggressions x Avoidance | .00 | .00 | .03 | .31 | .76 | | | | | | | | | |
| Microaggressions x Sense of Belonging | .00 | .00 | -.08 | -1.00 | .32 | | | | | | | | | |

Note. *N*= 155*p* < .05 ** *p* < .01 ****p* < .001

CHAPTER V: DISCUSSION

The current study used a quantitative methodology to examine the following research questions: 1) What is the frequency and most/least common types of racial microaggressions that African American doctoral students in psychology experience? 2) What is the impact of microaggressions on psychological well-being for African American doctoral students in psychology? 3) Do coping strategies and sense of belonging buffer the negative effects of microaggressions on psychological well-being for African American doctoral students in psychology? This study was one of the few to explore racial microaggression experiences within doctoral students' academic programs. Overall, the findings shed light on racial microaggression experiences and factors that influence well-being for these students.

Frequency and Types of Microaggressions

The first research question was “What is the frequency and most/least common types of racial microaggressions that African American doctoral students in psychology experience?” Results demonstrated that every participant in this study experienced at least one racial microaggression in their doctoral program within the last six months. This is notable, and adds to a growing body of evidence (e.g., Torres et al., 2010) that African American doctoral students in psychology experience racial discrimination.

Descriptive statistics from the Racial and Ethnic Microaggressions Scale (REMS; Nadal, 2010) revealed that the average number of microaggressions experienced by participants was 86.87 ($SD = 23.09$), with a range from 51-193. The possible range for

this scale is 0-220. Although the mean may seem low given what is known about discrimination experiences on campus (e.g., Brown & Segrist, 2015; Banks, 2010; Bynum et al., 2007), it is important to note that some items on the REMS may not be applicable to most African Americans (e.g., Someone assumed that I spoke a language other than English). Therefore, the mean score might actually have been higher if these items were removed.

Alternatively, the seemingly low number of microaggressions reported might be accurate for these students, and might be a result of the diversity of faculty and students present within participants' programs. On average, participants reported that 18% of students and 15% of their faculty were African American. Nationally, only about 6% of African American doctoral students and faculty are represented in psychology doctoral programs (APA, 2016); therefore the current sample represented more diverse contexts, which may have lessened the amount of microaggressions experienced.

It is important to mention however that the average number of microaggressions reported in this study were not drastically lower compared to previous studies. For instance, a recent study conducted in 2015 examined the differences in experiences of racial and ethnic microaggressions among Asian, Latin/Hispanic, Black, and White young adults. Results found that the sum of scores on the total REMS ranged from 45 to 223 ($M = 95.3$; $SD = 32$) across groups (Forrest-Bank & Jenson, 2015). Additionally, a study examining microaggression experiences among African American young adults found that the REMS average was 107.27 for the sample group (Forrest-Bank, 2012).

A final, alternative hypothesis that may explain the frequency of microaggressions found in this study might be due to the fact that participants

underreported the racial microaggressions they experienced because they were either minimizing them or unsure of whether they were in fact microaggressions. According to Krieger (2000), not all microaggression experiences are necessarily reported, depending upon individuals' willingness or ability to report them. Experts also note that for the recipient of a microaggression there is always the nagging question of whether it really happened. It is difficult to identify a microaggression when it occurs, especially when other explanations seem plausible (Sue et al., 2007).

Findings revealed that the most common types of racial microaggressions experienced within the past six months were *environmental* and *assumptions of inferiority*. For example, participants most frequently endorsed the following statements: "I observed people of my race portrayed positively on television" (reversed scored) (14%, $n=21$) and "Someone acted surprised at my scholastic or professional success because of my race" (11%, $n=17$). The endorsement of these two types of microaggressions is consistent with previous studies, which indicated that an assumption of intellectual inferiority and perceiving environmental messages of being less valued were major themes endorsed by ethnic minority individuals (Sue et al., 2008).

According to authors, assumptions of inferiority, which involve ascriptions of intelligence, may be particularly salient for high-achieving individuals given that microaggressions occur in an important domain of professional functioning and academic success (Torres et al., 2010). In the current study, although participants were enrolled in more diverse doctoral programs compared to the national statistics, these programs were still predominantly white. Due to this fact, racial microaggressions may--and do, as evidenced by the findings--still occur. In contexts such as these, students of color may

experience environmental messages of being less valued or less welcome. Additionally, students in these settings may observe that racial minority individuals within their program do not hold powerful or influential roles compared to the non-minority individuals. Examples of this imbalance of power on a larger level are when a college/university has buildings that are all named after White heterosexual upper class males (Fujii-Doe, 2017), or programs that have no African American training directors, Chairs, or tenured faculty. Therefore, it is possible that students may still feel inferior or unwelcome despite their doctoral program consisting of racially diverse faculty and students.

Findings revealed that the least common types of racial microaggressions experienced within the past six months were *exoticization/assumptions of similarity*. For example, participants least frequently endorsed the following statements: “Someone did not believe me when I told them I was born in the US” (91%, $n=141$); “Someone assumed that I speak similar languages to other people in my race” (90%, $n=139$); and “Someone asked me to teach them words in my “native language” (89%, $n=138$). The endorsement of this type of microaggression is consistent with previous studies noting that African Americans are not likely to endorse many experiences of racist similarity assumptions and race objectification (Forrest-Bank & Jenson, 2015; Nadal et al., 2014)

Microaggressions and Psychological Well-being

The second research question in this study was “What is the impact of microaggressions on psychological well-being for African American doctoral students in

psychology?” Contrary to hypotheses, results from correlation analyses demonstrated that the relationship between racial microaggressions and psychological well-being was not significant ($r = -.11, p = .19$). Additionally, hierarchical multiple regression analysis results showed that microaggressions did not significantly predict psychological well-being [$F(1,152) = 1.72, p = .19$]. It is important to note that these findings are in contrast with the majority of previous research (Helm, 2013; Ong et al., 2013; Torres et al., 2010), which has indicated that microaggressions do significantly predict well-being. Several hypotheses may explain why there was not a relationship between racial microaggressions and psychological well-being in this study’s sample.

First, the type of well-being examined in this study may explain why a significant relationship between microaggressions and well-being was not found. Throughout the literature, the majority of research has noted how racial discrimination is associated with negative indicators of well-being (Berjot & Gillet, 2011; Gaylord-Harden & Cunningham, 2009; Greer & Brown, 2011; Torres et al., 2010). To date, there are more than ten studies that have explored the relationship between racial discrimination and psychological distress (e.g., depression, anxiety, suicidal thoughts) for African Americans adults (Banks, 2010; Cokely, Hall-Clark, & Hicks, 2011; Davis, Wimsatt, 2010; Hwang & Goto, 2008; Landrine, Klonoff, Corral, Fernandez, & Roesch, 2006; Nadal, 2011; Schwenk, Nadal, Griffin, Wong, Hamit, & Rasmus, 2014; Smith, 2007). Furthermore, there are three studies examining the relationship between racial discrimination and psychological stress for African American graduate students in various disciplines (Perry, Hardeman, Burke, Cunningham, Burgess, & van Ryn, 2016; Schwenk, Davis, Wimsatt, 2010; Torres et al., 2010), all finding that racial discrimination (including

microaggressions) was significantly associated with negative outcomes (e.g., depression, suicidal ideation).

Conversely, there are significantly fewer studies that have examined the relationship between racial discrimination and positive well-being indicators among African American adults and graduate students, and authors have noted that findings regarding this association are inconclusive (Yang, 2014). For example, an early study that examined race-related factors of racial discrimination and their impact on life satisfaction found that African American adults who experienced discrimination had lower levels of life satisfaction (Broman, 1997). A later study conducted by Broman et al. (2000) investigated the experience and consequences of discrimination among African American adults, with findings indicating that racism negatively predicted enhanced positive well-being (e.g., mastery) among the sample.

Similarly, a 2003 study conducted by Ryff, Keyes, and Hughes (2003) examined the effect of discrimination (not only racial discrimination) on all six dimensions of Ryff's Scale of Psychological Well-being (Ryff, 1995) among a sample that included 339 African American adults. They found that perceived discrimination significantly, negatively affected African American individuals on all six dimensions of psychological well-being (i.e., self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth) (Ryff, Keyes & Hughes, 2003).

In contrast to the aforementioned findings, Utsey, Ponterotto, Reynolds, and Cancelli (2000) conducted a study exploring the impact of racism among African American college students. They found that there was not a significant relationship between race-related stress and positive well-being (e.g., life satisfaction) in this sample.

To date, no published studies have investigated the relationship between racial discrimination and positive well-being among African American graduate students specifically. Additionally, no previous studies have investigated Ryff's (1995) overall psychological well-being using the 18-item version (Yang, 2014).

As can be seen, very little research has been conducted about the relationship between racial discrimination (particularly microaggressions) and positive well-being among African Americans adults, with only one study that focused on college students and found no relationship. It is possible, therefore, that the relationship between racial discrimination and psychological well-being among African American doctoral students is not as strong as the relationship with negative indicators of well-being such as depressive symptoms or anxiety. The fact that well-being and depression, for example, are not just opposite ends of a continuum has been noted in positive psychology research (Diener, Suh, Lucas, Smith, 1999; Keyes, 1998; Diener, 1984) and may help to explain these findings. More specifically, it has been noted that mental health (e.g., positive well-being) and mental illness (e.g., negative well-being) are related, but distinct (Keyes, 2005; Westerhof & Keyes, 2010). Keyes uses the term *two continua model* of mental illness and health to explain this phenomenon (Westerhof & Keyes, 2010). He notes that one continuum indicates the presence or absence of mental health, the other the presence or absence of mental illness. Data from a 2005 study data provides strong support for the two continua model by suggesting that mental health is best viewed as a complete state, i.e., not merely the absence of mental illness but also the presence of mental health (Keyes, 2005). Positive mental health should be taken into consideration when attempting to explain why new results were found in the current study.

There has been only one study to date that has examined both positive (e.g., life satisfaction) and negative (e.g., depression) well-being among African American college students who experience racial discrimination (Prelow, Mosher, & Bowman, 2006). This study used a mediation model to independently examine the impact of racial discrimination on life satisfaction and depression for African American college students. Results found that perceived racial discrimination was associated with symptoms of depression and lower levels of life satisfaction. Overall, additional research should use a multifaceted approach to examine both positive and negative wellbeing to see if similar or different findings occur.

A second reason that may explain why the expected relationship between racial microaggressions and psychological well-being was not found may be due to the sample investigated. Prior studies have primarily examined African American adults and undergraduate students (Banks, 2010; Brown & Segrist, 2015; Bynum et al., 2007; Lambert et al., 2009; Utsey et al., 2000). It is possible that reactions to experiencing racial microaggressions and their effects of well-being differ in African American doctoral students, for a variety of reasons.

First, additional factors may be contributing to well-being for doctoral students. According to experts, doctoral students experience enhanced stressors that impact their well-being; for instance, financial stress, high academic workloads, and limited self-care (El-Ghoroury, Galper, Sawaqdeh, & Bufka, 2012). Therefore, there may be other more prominent stressors in participants' doctoral student experience that influence their psychological well-being.

Second, doctoral students' cognitive resilience (Morales, 2008) may have developed throughout their previous academic experiences and challenges. As doctoral students who have advanced to a high level of academic achievement, they may be better prepared to handle microaggressions when they occur in their doctoral program, which may explain why a relationship was not found that indicated an impact on their well-being. Their enrollment status shows evidence that they have been able to succeed academically despite experiencing racial stress.

Reflecting on the history of the African American experience may provide one explanation for the success among these students. Despite the significant hardships that African Americans have and continue to face in society, this group has shown extraordinary strength and remarkable resilience by historically rising through adversity, even under the most strenuous situations. Through slavery, racism, and the lack of basic human rights, African Americans have pushed through to become significant contributors to American society despite an uneven playing field. Through holding an instilled strength and tenacity, these students may have used racial discrimination as fuel for motivation to succeed.

A third reason that may explain the results found may be related to the context. Due to participants being enrolled in doctoral programs with other ethnic minority students and faculty present, they may be part of a context that promotes cultural identity and well-being. For example, it is possible that participants hear messages of cultural pride (such as exposure to African American history and traditions) from other ethnic minority students and faculty. These types of racial socialization messages, as well as specific messages to appreciate cultural legacy, have been shown to relate to

psychological strength and resistance to overcome racial oppression and devaluation (Brown & Tylka, 2011; Ward, 1999). Therefore, it may be possible that having a strong appreciation for cultural is critical to determine whether microaggressions are associated with positive well-being.

Coping Strategies and Sense of Belonging

The third research question was “Do coping strategies and sense of belonging buffer the negative effects of microaggressions on psychological well-being for African American doctoral students in psychology?” To answer this question, the interaction between each of the moderators (social support, problem solving, acceptance and sense of belonging) and microaggressions was tested.

Findings indicated that social support, problem solving, avoidance, and sense of belonging did not buffer the impact of microaggressions for this sample; therefore the hypotheses were not confirmed. Given there was no initial relationship between microaggressions and psychological well-being, however, this is not surprising. Nevertheless, it is important to consider potential moderating effects even when a significant correlation is not found (MacKinnon, 2011).

It is possible that coping strategies and sense of belonging alone may not influence well-being when participants experience microaggressions due to the possible presence of additional moderating variables. For example, one variable that was not accounted for in this study was self-esteem. This variable is notable to mention because secure high self-esteem is generally associated with positive psychological health.

According to experts, self-esteem has been found to be the most dominant and powerful predictor of happiness (Furnham and Cheng, 2000). Consistent with the transactional model of stress and coping (Lazarus & Folkman, 1984), self-esteem may play an important role in promoting positive well-being when microaggressions are present. A couple of studies indicate that self-esteem appears to moderate the effect of stress on the psychological functioning of college students (Kreger, 1995; Pasha & Munaf, 2013). For the current study, it is possible that doctoral students' high self-esteem, which was not measured, may have weakened the influence of coping strategies and sense of belonging on well-being when microaggressions were present.

Although not a research question in this study, it is important to note the main effects on well-being. The main effects tested in this study are not connected with microaggressions; however, they contribute to our understanding of psychological well-being among African American doctoral students.

Findings suggested that problem solving strategies utilized by students contributed to higher well-being. This aligns with previous research, which suggests that problem solving coping relates to positive wellness for students (Lee, 2005). Previous literature on African American undergraduate students notes that high functioning, successful individuals are more likely to use problem focused strategies (Nes & Segerstrom, 2006). The current study results provide more information on how African American doctoral students cope, suggesting that confronting targets of stress is related to higher well-being in this particular population.

In addition, avoidance was found to significantly predict a decrease in psychological wellbeing. This is consistent with previous literature with African

American students indicating that avoidance is detrimental to overall health (Barnes & Lightsey, 2005).

The variable of social support was not found to directly predict psychological well-being, which was surprising. This finding contrasts with previous studies indicating that social support within a university setting enhances wellness for African American college students (Harper, 2009; Levin et al., 2006; Prelow et al., 2006; Solorzano et al., 2000). One explanation for these unexpected findings may be that doctoral programs may expect students to develop a high level of autonomy and independence, which may reduce the likelihood of students reaching out for social support. Another reason may be that students seek social support elsewhere (e.g., within the community), and may not rely on support within their program to promote their well-being.

Finally, sense of belonging was not found to significantly predict psychological well-being. These findings conflict with previous work noting the importance of sense of belonging for undergraduate and graduate students (Brondolo et al., 2008; Choa et al., 2012; O'Meara, Griffin, Kuvaeva, Nyunt, & Robinson, 2017; Utsey & Payne, 2001). To date, however, no previous studies have examined sense of belonging specifically among African American doctoral students in psychology. However, compared to previous studies examining sense of belonging among undergraduate populations (e.g., Johnson, Soldner, Leonard, & Alvarez, 2007) it is evident that participants in this study hold a lower sense of belonging compared to other groups. It is possible that students in this study may not heavily rely on connectedness with their social environment to enhance their positive functioning. As students who have progressed into the highest level of their

education, they may be more focused on academic success rather than program connectedness.

Limitations

There are several limitations to this study. First, the utilization of nonprobability-sampling techniques may have influenced the generalizability of the findings. Individuals were invited to participate largely through snowball sampling, and diverse higher education institutions were heavily targeted to successfully recruit the maximum amount of participants. Also, due to the relatively small sample size, the results gathered may not be representative of all African American doctoral students in the field of psychology.

Another possible limitation is that participants may have answered in a socially desirable way, perhaps to minimize their reports of microaggressions or overemphasize their levels of well-being. Research shows evidence that even if a participant is trying to respond honestly, they may lack the introspective ability to provide an accurate response to a question (Fan, Miller, Park, Winward, Christensen, Grotevant, & Tai, 2006).

Therefore, it may be possible that participants over reported experiencing high levels of psychological well-being.

Third, it is possible that recall bias may have made it challenging for participants to accurately report microaggressions. When participants reflected on previous experiences occurring within the past six months, it is possible that many incidences were inaccurately reported due to a recency effect. The most recent microaggression

experiences were most likely recalled best, and experiences that occurred a few months ago may have been difficult to cognitively retrieve.

Fourth, limitations may have existed in some of the language used in the instructions for completion of certain scales. For instance, instructions for the Coping Strategies Indicator (CSI; Amirkhan, 1990) stated: “Please recall your past experiences with racial microaggressions in your doctoral program and indicate the extent to which you used the specific responses to cope with these experiences.” Individuals may have not understood how “racial microaggressions” were defined as there was no definition listed. Also, instructions on the Sense of Belonging Scales (SOBS; Hoffman et al., 2002) did not differentiate between the term “program” and “department” when asking participants to reflect on their feelings of social connectedness. In some cases there may be differences in climate between a specific program and a larger department. These small but important language issues may have influenced how participants responded.

Finally, there was one question on the REMS that was left out from the survey due to researcher error (“My opinion was overlooked in a group discussion because of my race”). It is unknown how significant of an impact this question would have had on the results, however due to the REMS having an overall Cronbach’s alpha of .91, good internal consistency of this measure was still evident. Nonetheless, the scale was not utilized as originally developed in this study.

Implications for Research and Practice

The findings of this study have important implications for research. First, results indicate that similar to many contexts within higher education, doctoral programs are not free of racial discrimination. Similar to Torres and colleagues (2010) study, African American doctoral students in this study experienced racial microaggressions despite their high educational attainment. It is also important to note that the present study is one of the first to tailor the REMS to investigate racial microaggressions within academic programs, as opposed to examining microaggression experiences within society as a whole. Therefore, the current study adds to the literature by indicating that these racial discrimination experiences occur specifically within students' psychology doctoral programs.

Second, only a few studies have used positive well-being (e.g., Broman et al., 2000; Ryff, Keyes, & Hughes, 2003; Utsey, Ponterotto, Reynolds, & Cancelli, 2000) when exploring racial stress experiences among African Americans. As previously mentioned, authors have noted that empirical findings regarding the association between racial stress and positive well-being are inconclusive (Yang, 2014). Additionally, only one study to date has examined both positive and negative well-being among African American college students who experience racial discrimination (Prelow, Mosher, & Bowman, 2006). For the present study, it is possible that administering an additional scale of a negative indicator, such as depressive symptoms or anxiety, may have better highlighted the difference in relationships between these variables. Future studies should include indicators of both positive and negative well-being to see if they might relate in

different ways to racial microaggressions, or if they do not relate at all. Additionally, conducting more studies utilizing a positive well-being indicator will add valuable information about the two continua model of mental health (Keyes, 2002).

Third, as previously noted, it is possible that a moderating variable was at play, which may explain the lack of relationship between racial microaggressions and psychological well-being. For instance, it is possible that having a strong cognitive resilience may buffer the impacts of racial discrimination on well-being for African American doctoral students.

Fourth, a longitudinal design might offer meaningful information that was not gathered in the present study. For instance, this method may illuminate the variety of stressors that African American doctoral students experience throughout their academic programs (e.g., financial hardships). This information could be useful for suggesting how various stressors impact positive and negative well-being. Furthermore, a longitudinal design may help to determine when racial microaggressions are most prominent and detrimental during students' doctoral program.

Fifth, although the demographic breakdown of participants in this sample was similar to the national statistics (e.g., gender, age, degree program), participants reported being enrolled in more diverse doctoral programs compared to the national norm. As previously mentioned, this diverse social environment may have influenced the findings of this study. Future research should replicate this study with less diverse academic programs to see if microaggressions are related to psychological well-being.

The findings of this study also have important implications for practice. First, educators should keep in mind that African American students are currently experiencing

racial microaggressions in their programs. Program and faculty diversity is not enough to completely eradicate racial microaggressions. It may be beneficial for programs to provide multicultural training to students and faculty to enhance cultural self-awareness. Racial microaggressions should be defined and examples should be provided (e.g., examples of environmental and assumptions of inferiority microaggressions). Continuing education may be a pivotal step in reducing racial microaggression experiences within academic programs.

Second, data suggests that practitioners should be mindful that coping for African American doctoral students is individualized. This means that the coping style used to manage stress may differ depending on the individual. Therefore when working with this population, a personalized approach should be utilized to help students find what coping strategy may be best for them. Also, due to African American doctoral students relying on problem solving techniques to enhance their well-being, it is possible that African American doctoral students hold enhanced autonomy and high levels of independence. Therefore, higher education institutions should be aware that doctoral students might rely on solving issues on their own rather than reaching out to individuals within their program. Academic programs should provide information on self-care and coping with racial stress through educational events, during advising, and/or via email distribution.

Third, it should not be assumed that racial stress alone directly influences student's well-being. Research by El-Ghoroury, Galper, Sawaqdeh and Bufka (2012) found that within a multiethnic psychology graduate student sample (which include African Americans), academic responsibilities, finances/debt, anxiety, and poor work/school-life balance were the most significant barriers to wellness. This supports the

idea that additional factors should be taking into consideration when assisting African American doctoral students cope with stress.

In addition to enhancing awareness among educators of the concerns presented in this study, it is important that there be institutional/systemic changes. At the institutional level, senior university leaders should make systemic changes to enhance inclusivity for students of color. One example may include requiring that all students, faculty, and staff attend diversity training focusing on racial equality and inclusion. This type of training can be embedded in each academic program or be completed through attending community cultural enrichment activities (e.g., attending an African American history museum). These activities may also be beneficial for promoting cultural pride among African American students. As previously mentioned, being repeatedly exposed to African American history and traditions may assist with psychological strength and resilience.

Additionally, ensuring that campuses have a bias incident report system in place can offer a resource for students to document their experiences of racial microaggressions, which may assist with providing evidence that these incidences do in fact exist. This documentation may be useful with further providing evidence for the need of diversity resources and inclusivity programming. There should also be university policies and procedures in place that assist with ensuring academic program environments are inclusive to all individuals. When racial incidences occur (e.g., microaggressions), there should be a non-discriminatory policy clause that may assist with appropriate discipline if necessary.

It is also important that resources be available at a professional organization level. For instance, the American Psychological Association (APA) has various divisions that can assist with support African American doctoral students (e.g., Committee for the Advancement of Racial & Ethnic Diversity, Division 45). Conducting webinars and disseminating information to academic programs may assist with providing students helpful coping strategies to use when experiencing race-related stress in their programs.

Altogether, future research is needed to enhance our understanding of how to diminish the occurrence of racial microaggressions within higher education programs. Further exploring how students cope with race-related experiences can also improve programing and student support services. Additionally, awareness alone may not be enough to diminish racial microaggression experiences. Systemic, organizational, and policy changes are needed to best support these students.

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APPENDIX A

IRB Exempt Form Confirmation



Office of Research Compliance

Schroeder Complex, 102
P.O. Box 1881
Milwaukee, Wisconsin 53201-1881P 414.288.7570
F 414.288.6281
W marquette.edu/researchcompliance**Date:** 9/25/2017**HR-1709019362****Principal Investigator:** Mr. Ryan Warner**Faculty Advisor:** Dr. Lisa Edwards**Department:** Psychology**Study Title:** Well-being Among African American Doctoral Students in Psychology**New Study Approval**

- ☒ This protocol has been determined to be Exempt under category 2 as governed by 45 CFR 46.101(b).
- ☐ This protocol has been approved as minimal risk under Expedited category # as governed by 45 CFR 46.110.
- ☐ This protocol has been reviewed by the Institutional Review Board on [date] and approved as:
- | | |
|--------------------------|---------------------------|
| <input type="checkbox"/> | Minimal risk |
| <input type="checkbox"/> | Greater than minimal risk |

Approval Date

- ☒ This exempt determination was made on **9/22/2017**.
- ☐ This study was approved on [date] for a period of twelve months. This IRB approval will expire on [date]. Please submit a continuing review application if approval is requested beyond this date.

Consent

- ☒ Please use the final version of the exempt information sheet or consent form submitted to the IRB. Contact the IRB office if you have questions about which document you should be using.
- ☐ The IRB approved informed consent form is attached. Use the stamped copies of this form when enrolling research participants. Each research participant should receive a copy of the consent form.
- ☐ This study has been approved for waiver of documentation of consent under 45 CFR 46.117(c)(1) or (2). Please use the approved consent information sheet with your participants.
- ☐ This study has been approved for alteration or waiving of consent under 45 CFR 46.116(d).

Study specific notifications

- ☐ The IRB approved recruitment materials are enclosed with this letter. Use stamped copies of these documents for recruitment purposes.
- ☐ This study involves students collecting data through surveys- please review the MU Questionnaire/Survey Procedures: http://www.marquette.edu/osd/policies/survey_procedure.shtml
- ☐ This study involves recruitment emails for online surveys to be sent to 100 or more Marquette students, faculty or staff. Please review the website of the Online Survey Review Group: <http://www.marquette.edu/online-surveys/>
- ☐ This protocol involves the use of electrical or mechanical systems that require direct human contact. Electrical and mechanical safety inspections should be conducted per Marquette University Human Research Protection Equipment and Electrical Safety Testing Policy 98.106.



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W marquette.edu/researchcompliance**HIPAA**

| | |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | This study involves accessing PHI from a HIPAA covered entity. The IRB has granted approval to access the following protected health information for the purpose of this study: <ul style="list-style-type: none"> x |
| <input type="checkbox"/> | A HIPAA Authorization form has been approved and should be used to with study subjects. |
| <input type="checkbox"/> | A waiver of authorization has been approved for this study. |

All changes to this protocol must be reviewed and approved by the IRB before being initiated, except when necessary to eliminate apparent immediate hazards to the human subjects. If the study is exempt, please email the requested changes to orc@marquette.edu. If the study is not- exempt, please submit personnel changes using the personnel amendment form or any other changes using the amendment submission form.

If there are any adverse events or deviations from the approved protocol, please notify the Marquette University IRB immediately.

An IRB Final Report Form must be submitted once this research project is complete. The form should be submitted in a timely fashion, and must be received no later than the protocol expiration date.

The principal investigator is also responsible for ensuring that all non-Marquette study staff receive appropriate training in the ethical guidelines of conducting human subjects research. Unless a separate reliance agreement is in place, please note that approval of a study with non-Marquette investigators does not indicate that Marquette University is assuming oversight for the research activities occurring outside of Marquette's purview.

Please contact the Office of Research Compliance with any further questions. Thank you for your cooperation and best wishes for a successful project.

Jessica Rice, MPH, CIP
IRB Manager
Office of Research Compliance

APPENDIX B

Online Consent Statement

You are invited to participate in a study exploring well-being among African American doctoral students in psychology. Through your participation in this brief demographic questionnaire and web-based survey, you are contributing to research that helps assist with retention and guide future programing efforts for African American doctoral students in psychology.

There are no expected risks to participate in the demographic questionnaire or online survey. Participation is voluntary, and you are able to discontinue at anytime without any negative consequences. All information will remain anonymous. Data collected from this survey and questionnaire will be used for future research purposes, however no identifying data will be collected. Additionally, your anonymity is further protected by not asking you to sign and return an informed consent document. Confidentiality will be maintained using a numeric code system that will be assigned to the online responses.

There are no direct benefits to you for participating in this study. This research may benefit society and higher education institutions by providing useful information regarding the racial experiences of African American graduate students. Participants who complete the survey will have the option to be entered in a raffle to win one of three \$20 amazon gift cards. Individuals who wish to participate in the raffle will be asked to provide their email separately from the survey; directions will be provided at completion. Your responses will not be linked in any way to your email address.

Clicking “I agree” on the online cover page and continuing to begin the study will serve as your acceptance of the information provided in this online informed consent document and your consent to participate in this study. Data for this study will be entered into a password-protected computer. You will be required to complete a brief demographic questionnaire and online survey. It should take about 15-20 minutes to complete both.

I HAVE HAD THE OPPORTUNITY TO READ THIS ONLINE CONSENT FORM,
ASK QUESTIONS ABOUT THE RESEARCH PROJECT AND AM PREPARED TO
PARTICIPATE IN THIS PROJECT.

I Agree

I Disagree

If you have any questions or concerns, please do not hesitate to email me at ryan.c.warner@marquette.edu or Dr. Lisa Edwards at lisa.edwards@marquette.edu. If you have questions or concerns about your rights as a research participant, you can contact Marquette University’s Office of Research Compliance at (414) 288-7570.

APPENDIX C

Email Announcement of Research Study

Dear Fellow Graduate Students,

My name is Ryan Warner and I am a Counseling Psychology doctoral candidate at Marquette University. I am writing to invite you to participate in a study exploring well-being among African American doctoral students in psychology. As a self-identified African American doctoral student, I am personally invested in this research topic and hold a deep interest in learning more about students' experiences in doctoral programs. Through your participation in this brief demographic questionnaire and web-based survey, you are contributing to research that will help assist with retention and guide future programing efforts for African American doctoral students in psychology. My doctoral advisor, Dr. Lisa Edwards in the Department of Counselor Education and Counseling Psychology, is supervising this project. This research has been approved by Marquette University's Institutional Review Board, Office of Human Subjects, #1709019362

To participate in this study, individuals must meet the following criteria:

- Self-identify as African American
- Be 18-years old or older
- Be currently enrolled in a doctoral-level (PhD, EdD, or PsyD) psychology program (e.g., clinical counseling, I/O, educational, cognitive, experimental, community, developmental psychology) in the United States

Below is a link to the brief demographic questionnaire and online survey. Your responses will be kept completely confidential. The time needed to complete the entire survey is approximately 15-20 minutes. The survey includes questions about different aspects of your experience while in your graduate program and within your program. Upon completion you will have the chance to provide your email to enter a raffle to win a virtual \$20 Amazon gift card. Individuals who wish to participate in the raffle will be asked to provide their email separately from the survey; directions will be provided at completion. Your responses will not be linked in any way to your email address.

If you are interested in participating you can access the survey by clicking this link:

https://marquette.az1.qualtrics.com/jfe/form/SV_9SnY25FjPOwMmnH

If you have any questions or concerns, please do not hesitate to email me at ryan.c.warner@marquette.edu or Dr. Lisa Edwards at lisa.edwards@marquette.edu. Thank you in advance for your participation. Additionally, if you may know of anyone that fits the study criteria, please spread the word! Your participation is greatly valued and appreciated!

Sincerely,
Ryan Warner, MS, CRC
Counseling Psychology Doctoral Candidate
Department of Counselor Education and Counseling Psychology | Marquette University

APPENDIX D

Demographics Form

Individual Information**Race/Ethnicity:**

Black/African American
Bi-racial (please specify _____)
Other

Gender:

Male
Female
Transgender
Other

Age: _____

Relationship Status:

Single
Married/Partnered/Committed Relationship

Program Information**Psychology Degree Program:**

Clinical
Counseling
Industrial Organizational (I/O)
Educational
Cognitive
Social
Community
Developmental
Experimental
Other

Degree Sought:

Ph.D
Psy.D
Ed.D

Year in Program:

1st
 2nd
 3rd
 4th
 5th +

College/University Region:

Midwest (e.g., Minnesota, Wisconsin, Illinois, Missouri, Indiana, etc.)
 Northeast (New Jersey, Rhode Island, Massachusetts, New York, etc.)
 South (Florida, North Carolina, Kentucky, Tennessee, Virginia, etc.)
 West (California, Oregon, Arizona, Colorado, Montana, Idaho, etc.)

Type of College/University:

Public
 Private

Percentage of African American *Faculty* in Program:

Percentage of African American *Students* in Program:

Percentage of Ethnic Minority *Faculty* (including African American and others) in Program:

Percentage of Ethnic Minority *Students* (including African American and others) in Program:

APPENDIX E

Racial and Ethnic Microaggressions Scale (REMS)

Think about your experiences with race you have had within your **DOCTORAL PROGRAM**. Please read each item and think of how many times this event has happened to you in the **PAST SIX MONTHS**.

Using the key listed below, circle the number that most closely reflects your feelings about each statement.

- 0 = I did not experienced this event in my program.
 1 = I experienced this event 1– 3 times in the past six months in my program.
 2 = I experienced this event 3– 6 times in the past six months in my program.
 3 = I experienced this event 6– 9 times in the past six months in my program.
 4 = I experienced this event 10 or more times in my program.

Questions:

1. I was ignored in my program because of my race.
2. Someone's body language showed they were scared of me, because of my race.
3. Someone assumed that I spoke a language other than English.
4. I was told that I should not complain about race.
5. Someone assumed that I grew up in a particular neighborhood because of my race.
6. Someone avoided walking near me because of my race.
7. Someone told me that she or he was colorblind.
8. Someone avoided sitting next to me in a public space (e.g. campus library, classroom, etc.) because of my race.
9. Someone assumed that I would not be intelligent because of my race.
10. I was told that I complain about race too much.
11. I received substandard assistance in my program compared to students of other racial groups.
12. I observed people of my race in prominent positions in my program.
13. Someone wanted to date me only because of my race.
14. I was told that people of all racial groups experience the same obstacles.
15. My opinion was overlooked in a group discussion because of my race.
16. Someone assumed that my work would be inferior to people of other racial groups.
17. Someone acted surprised at my scholastic or professional success because of my race.
18. I observed that people of my race were high-level leaders at my institution.
19. I observed people of my race portrayed positively on television.
20. Someone did not believe me when I told them I was born in the US.
21. Someone assumed that I would not be educated because of my race.
22. Someone told me that I was "articulate" after she/he assumed I wouldn't be.
23. Someone told me that all people in my racial group are all the same.

24. I observed people of my race portrayed positively in magazines.
25. A classmate or instructor was unfriendly or unwelcoming toward me because of my race.
26. I was told that people of color do not experience racism anymore.
27. Someone told me that they “don’t see color.”
28. I read popular books or magazines in which a majority of contributions featured people from my racial group.
29. Someone asked me to teach them words in my “native language.”
30. Someone told me that they do not see race.
31. Someone clenched her/his purse or wallet upon seeing me because of my race.
32. Someone assumed that I would have a lower education because of my race.
33. Someone of a different racial group has stated that there is no difference between the two of us.
34. Someone assumed that I would physically hurt them because of my race.
35. Someone assumed that I ate foods associated with my race/culture every day.
36. Someone assumed that I had a lower paying job because of my race.
37. I observed people of my race portrayed positively in movies.
38. Someone assumed that I was poor because of my race.
39. Someone told me that people should not think about race anymore.
40. Someone avoided eye contact with me because of my race.
41. I observed that someone of my race is a government official in my state
42. Someone told me that all people in my racial group look alike.
43. Someone objectified one of my physical features because of my race.
44. A classmate or instructor treated me differently than White classmates.
45. Someone assumed that I speak similar languages to other people in my race.

APPENDIX F

Coping Strategies Indicator (CSI)

Instructions:

These questions are about how you cope with stressors. When answering these items please recall your past experiences with racial microaggressions in your **DOCTORAL PROGRAM** and indicate the extent to which you used the specific responses to cope with these experiences.

Select the number that best describes your present agreement or disagreement with each statement.

A lot (3), A little (2), or (1) not at all

Questions:

1. Described your feelings to a friend (SS)
2. Rearranged things so your problem could be solved (PS)
3. Thought of many ideas before deciding what to do (PS)
4. Tried to distract yourself from the problem (A)
5. Accepted sympathy and understanding from someone (SS)
6. Did all you could to keep others from seeing how bad things really were (A)
7. Talked to people about the situation because talking about it made you feel better (SS)
8. Set some goals for yourself to deal with the situation (PS)
9. Weighed up your options carefully (PS)
10. Daydreamed about better times (A)
11. Tried different ways to solve the problem until you found one that worked (PS)
12. Talked about fears and worries to a relative or friend (SS)
13. Spent more time than usual alone (A)
14. Told people about the situation because talking about it helped you come up with solutions (SS)
15. Thought about what needs to be done to straighten things up (PS)
16. Turned your full attention to solving the problem (PS)
17. Formed a plan in your mind (PS)
18. Watched television more than usual (A)
19. Went to someone friend or professional to help you feel better (SS)
20. Stood firm and fought for what you wanted in the situation (PS)
21. Avoided being with people in general (A)
22. Buried yourself in a hobby or sports activity to avoid the problem (A)
23. Went to a friend to help you feel better about the problem (SS)
24. Went to a friend for advice about how to change the situation (SS)

- 25. Accepted sympathy and understanding from friends who had the same problem (SS)
- 26. Slept more than usual (A)
- 27. Fantasized about how things could have been different (A)
- 28. Identified with characters in movies or novels (A)
- 29. Tried to solve the problem (PS)
- 30. Wished that people would just leave you alone (A)
- 31. Accepted help from a friend or relative (SS)
- 32. Sought reassurance from those who know you best (SS)
- 33. Tried to carefully plan a course of action rather than acting on impulse (PS)

* The three subscales each contain 11 items and subscale scores are calculated by summing responses to appropriate items (range 0–33), higher scores indicate greater use of the strategy

* SS= social support; PS= problem solving; A= avoidance

APPENDIX G

Scale of Psychological Well-Being (SPWB)

Instructions:

The following set of questions deals with how you feel about yourself and your life. Please remember that there are no right or wrong answers.

Select the number that best describes your present agreement or disagreement with each statement.

- 1= strongly disagree
- 2= moderately disagree
- 3= slightly disagree
- 4=slightly agree
- 5=moderately agree
- 6=strongly agree

Questions:

- 1.* I tend to be influenced by people with strong opinions.
2. In general, I feel I am in charge of the situation in which I live.
3. I think it is important to have new experiences that challenge how you think about yourself and the world.
- 4.* Maintaining close relationships has been difficult and frustrating for me.
- 5.* I live life one day at a time and don't really think about the future.
6. When I look at the story of my life, I am pleased with how things have turned out.
7. I have confidence in my opinions, even if they are contrary to the general consensus.
- 8.* The demands of everyday life often get me down.
- 9.† For me, life has been a continuous process of learning, changing and growth.
10. People would describe me as a giving person, willing to share my time with others.
- 11.† Some people wander aimlessly through life, but I am not one of them.
12. I like most aspects of my personality.
- 13.† I judge myself by what I think is important, not by the values of what others think is important.
- 14.† I am quite good at managing the many responsibilities of my daily life.
- 15.* I gave up trying to make big improvements or changes in my life a long time ago.
- 16.*† I have not experienced many warm and trusting relationships with others.
- 17.* I sometimes feel as if I've done all there is to do in life.
- 18.*† In many ways, I feel disappointed about my achievements in life.

*These items are reverse-scored so that higher scores correspond to greater psychological well-being.

†These questions were selected for the Psychological Well-Being Index (PWBI).

*Lower scores indicate lower well-being or less satisfaction in the specific construct;
Higher scores indicate higher self-actualization and acceptance.

APPENDIX H

Sense of Belonging Scales (SOBS)

Instructions:

Please reflect on your experiences within your **DOCTORAL PROGRAM**.

Using the key listed below, circle the number that most closely reflects your feelings about each statement.

- 1= Strongly Disagree
- 2= Disagree
- 3= Neither Agree or Disagree
- 4= Agree
- 5=Strongly Agree

Questions:

1. I could call another student from class if I had a question about an assignment.
2. Other students are helpful in reminding me when assignments are due or when tests are approaching.
3. If I miss class, I know students who I could get the notes from.
4. I have met with classmates outside of class to study for an exam.
5. I discuss events which happen outside of class with my classmates.
6. I invite people I know from class to do things socially.
7. I have developed personal relationships with other students in class.
8. I have discussed personal matters with students who I met in class.
9. I feel comfortable seeking help from a faculty member before or after class.
10. I feel comfortable asking a faculty member for help if I do not understand course-related material.
11. If I had a reason, I would feel comfortable seeking help from a faculty member outside of class time (i.e., during office hours, etc.).
12. I feel comfortable talking about a problem with faculty.
13. I feel comfortable socializing with a faculty member outside of class.
14. I feel comfortable asking a faculty member for help with a personal problem.
15. Speaking in class comfortable.
16. I feel comfortable opinions in class.
17. I feel comfortable discussions.
18. I feel comfortable in class.
19. It is difficult to meet other students in class.
20. No one in my classes knows anything personal about me.
21. I rarely talk to other students in my classes.
22. I know very few people in my classes.

- 23. I feel that a faculty member would take the time to talk to me if I needed help.
- 24. I feel that a faculty member would be sympathetic if I was upset.
- 25. I feel that a faculty member would be sensitive to my difficulties if I shared them.
- 26. I feel that a faculty member really tried to understand my problem when I talked about it.

*Questions 9-14= Perceived faculty support/comfort

*Questions 15-18= Perceived classroom comfort

*Questions 19-22= Perceived isolation

*Questions 23-26= Empathetic faculty understanding